NPDES Permit Application
Ft. Chiswell/Max Meadows WWTP
VPDES # VA0074161
July 25, 2011

Prepared by
Wythe Co. Water & Wastewater Dept.
Donald T. Crisp, Director

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FACILITY NAME AND PERMIT NUMBER:

Fort Chiswell WWTP VA0074161

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information Packet.

A.1. Facility Information.

Facility Name	Fort Chiswell Wastewater Treatment Plant
Mailing Address	340 South Sixth Street Wytheville, VA 24382
Contact Person	Don Crisp, Jr.
Title	Director
Telephone Number	(276) 637-4544
Facility Address (not P.O. Box)	613 Locust Hill Road Max Meadows, VA 24360

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant Name	Wythe County Board of Supervisors
Mailing Address	340 South Sixth Street Wytheville, VA 24382
Contact Person	R. Cellell Dalton
Title	County Administrator
Telephone Number	(276) 223-6020

Is the applicant the owner or operator (or both) of the treatment works?

☒ owner ☒ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

☐ facility ☒ applicant

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES		PSD	
UIC		Other	VPDES #VA0074161
RCRA		Other	

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
Ft. Chiswell - MM	1150		Wythe County
Progress Park	300		Wythe County/IDA

Total population served 1450

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A.5. Indian Country.

a. Is the treatment works located in Indian Country?

☐ Yes ☒ No

b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

☐ Yes ☒ No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

a. Design flow rate 1.25 mgd

		Two Years Ago	Last Year	This Year
b.	Annual average daily flow rate	0.424 MGD	0.419 MGD	0.414 MGD
c.	Maximum daily flow rate	1.046 MGD	1.129 MGD	0.964 MGD

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

☒ Separate sanitary sewer 100 %

☐ Combined storm and sanitary sewer _____ %

A.8. Discharges and Other Disposal Methods.

a. Does the treatment works discharge effluent to waters of the U.S.? ☒ Yes ☐ No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent 1

ii. Discharges of untreated or partially treated effluent 0

iii. Combined sewer overflow points 0

iv. Constructed emergency overflows (prior to the headworks) 0

v. Other _____

b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.? ☐ Yes ☒ No

If yes, provide the following for each surface impoundment:

Location: _____

Annual average daily volume discharge to surface impoundment(s) _____ mgd

Is discharge ☐ continuous or ☐ intermittent?

c. Does the treatment works land-apply treated wastewater? ☐ Yes ☒ No

If yes, provide the following for each land application site:

Location: _____

Number of acres: _____

Annual average daily volume applied to site: _____ mgd

Is land application ☐ continuous or ☐ intermittent?

d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? ☐ Yes ☒ No

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

If transport is by a party other than the applicant, provide:

Transporter Name

Mailing Address

Contact Person

Title

Telephone Number ( )

For each treatment works that receives this discharge, provide the following:

Name

Mailing Address

Contact Person

Title

Telephone Number ( )

If known, provide the NPDES permit number of the treatment works that receives this discharge

Provide the average daily flow rate from the treatment works into the receiving facility. mgd

e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8. through A.8.d above (e.g., underground percolation, well injection): ☐ Yes ☒ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed by this method:

Is disposal through this method ☐ continuous or ☐ intermittent?

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 **once for each outfall** (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. **If you answered "no" to question A.8.a,** go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

a. Outfall number: 001

b. Location: 613 Locust Hill Road, Max Meadows, VA (City or town, if applicable) 24360 (Zip Code)
Wythe (County) VA (State)
37 57' 50" (Lattitutde) 80 55' 71" (Longitude)

c. Distance from shore (if applicable): N/A ft.

d. Depth below surface (if applicable): N/A ft.

e. Average daily flow rate: 0.414 mgd

f. Does this outfall have either an intermittent or a periodic discharge? ☒ Yes ☐ No (go to A.9.g.)
If yes, provide the following information:
Number f times per year discharge occurs: 2920 EST
Average duration of each discharge: Varies (SBR)
Average flow per discharge: Varies (SBR) mgd
Months in which discharge occurs: All

g. Is outfall equipped with a diffuser? ☒ Yes ☐ No

A.10. Description of Receiving Waters.

a. Name of receiving water: Reed Creek

b. Name of watershed (if known): New River
United States Soil Conservation Service 14-digit watershed code (if known): Unknown

c. Name of State Management/River Basin (if known): New River
United States Geological Survey 8-digit hydrologic cataloging unit code (if known): Unknown

d. Critical low flow of receiving stream (if applicable)
acute N/R cfs chronic N/R cfs

e. Total hardness of receiving stream at critical low flow (if applicable): N/R mg/l of $CaCO_3$

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A.11. Description of Treatment

a. What levels of treatment are provided? Check all that apply.

☒ Primary ☒ Secondary

☐ Advanced ☐ Other. Describe: _____

b. Indicate the following removal rates (as applicable):

Design BOD5 removal or Design CBOD5 removal	90	%
Design SS removal	90	%
Design P removal	N/R	%
Design N removal	90	%
Other _____	_____	%

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe:

Gas Chlorination

If disinfection is by chlorination is dechlorination used for this outfall? ☒ Yes ☐ No

d. Does the treatment plant have post aeration? ☐ Yes ☒ No

A.12 Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	7.1	s.u.			
pH (Maximum)	8.6	s.u.			
Flow Rate	0.964	MGD	0.414	MGD	365
Temperature (Winter)	18.4	Deg. C	15.5	Deg. C	365
Temperature (Summer)	23.7	Deg. C	20.6	Deg. C	365

* For pH please report a minimum and a maximum daily value

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
		Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NON CONVENTIONAL COMPOUNDS								
BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD5	18.5	mg/L	7.1	mg/L	156	SM18 5210B	2.0 mg/L
	CBOD5							
FECAL COLIFORM								
TOTAL SUSPENDED SOLIDS (TSS)		15.6	mg/L	6.9	mg/L	156	SM18 2540D	1.0 mg/L

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

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BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. **Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.**

1000 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

Preventative Maintenance

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

a. The area surrounding the treatment plant, including all unit processes.

b. The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.

c. Each well where wastewater from the treatment plant is injected underground.

d. Wells, springs, other surface water bodies, and drinking water wells that are: 1) within ¼ mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.

e. Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.

f. If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where the hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g., chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? ☒ Yes ☐ No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: Gary L. Johnson / EMS, Inc.

Mailing Address: P.O. Box 784
Wytheville, VA 24382

Telephone Number: (276) 228-6464

Responsibilities of Contractor: Operator in Responsible Charge

B.5. Scheduled improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

☐ Yes ☐ No

c. If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage	Schedule MM/DD/YYYY	Actual Completion MM/DD/YYYY
- Begin Construction	/ /	/ /
- End Construction	/ /	/ /
- Begin Discharge	/ /	/ /
- Attain Operational Level	/ /	/ /

e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ☐ Yes ☐ No

Describe briefly:

B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY). PREVIOUSLY SUBMITTED

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide effluent testing for the following listed parameters and those required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum effluent testing data must be based on at least three pollutant scans, preferably represent several seasons, and must be no more than four and on-half years old.

Outfall Number:

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NON CONVENTIONAL COMPOUNDS							
AMMONIA (as N)							
CHLORINE (TOTAL RESIDUAL, TRC)							
DISSOLVED OXYGEN							
TOTAL KJELDAHL NITROGEN (TKN)							
NITRATE PLUS NITRITE NITROGEN							
OIL and GREASE							
PHOSPHORUS (Total)							
TOTAL DISSOLVED SOLIDS (TDS)							
OTHER							

END OF PART B.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

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BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

☒ Basic Application Information packet

Supplemental Application Information packet:

☒ Part D (Expanded Effluent Testing Data)

☒ Part E (Toxicity Testing: Biomonitoring Data)

☒ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

☐ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title: R. Cellell Dalton, County Administrator

Signature: R Cellell Dalton

Telephone number: (276) 223-6020

Date signed: 8-25-11

Upon request of the permitting authority, you must submit any other information necessary to assure wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

FACILITY NAME AND PERMIT NUMBER:

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SUPPLEMENTAL APPLICATION INFORMATION

PART D. EXPANDED EFFLUENT TESTING DATA

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

Effluent Testing: 1.0 mgd and Pretreatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: **001** (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS.											
ANTIMONY	SEE ATTACHED REPORT										
ARSENIC											
BERYLLIUM											
CADMIUM											
CHROMIUM											
COPPER											
LEAD											
MERCURY											
NICKEL											
SELENIUM											
SILVER											
THALLIUM											
ZINC											
CYANIDE											
TOTAL PHENOLIC COMPOUNDS											
HARDNESS (AS CaCO3)											
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer											

EMS, Inc.
Environmental Management Services
Laboratory Services - Plant Operations - Consultants
P.O. Box 784 · Wytheville, VA 24382
Phone: 276-228-6464 · Fax: 276-228-2325
E-mail: emslab@wiredog.com

CERTIFICATE OF ANALYSIS

Final Report

July 20, 2011

Don Crisp
Wythe County Wastewater Department
340 South Sixth St., Admin. Bldg.
Wytheville, VA 24382

RE: Sample Number(s): 11-2493

Dear Mr. Crisp:

The analytical data contained in this report has been validated using standard quality control measures as specified by the analytical method, SOP's, and the Laboratory's Quality Assurance Manual. Unless otherwise noted, the results of all analyses meet the requirements of the analytical method and of NELAP. The parameters of temperature, pH, dissolved oxygen, and residual chlorine are analyzed in the field and are not included in our NELAP Scope of Accreditation.

Unless otherwise noted, subcontracted analyses are performed by laboratories who hold NELAP accreditation for the method(s) used.

Sample preservation is documented at the time of receipt at the laboratory and/or during the analysis procedure. Unless otherwise noted, all testing was performed on preservation compliant samples.

The analytical data contained in this report relates only to the samples submitted for analysis. This report shall not be reproduced, except in full, without the written permission of EMS, Inc. EMS, Inc. assumes no responsibility, expressed or implied, as to the interpretation or use of the analytical data contained in this report.

The liability of EMS, Inc. in any claim relating to analysis performed shall be limited to (at the option of EMS, Inc.) repeating the analysis in question or the refund of fees paid for the analysis.

If you have any questions, please feel free to contact us at 276-228-6464.

Sincerely,

Gary Mychel Johnson
Laboratory Manager

EMS, Inc.
Certificate of Analysis

Client: Wythe County Wastewater Department

Sample No.: 11-2493

Sample Source: Ft. Chiswell WWTP Effluent

Description: Wastewater

Date/Time Collected: 06-27-11/1142

Collected By: Gary L. Johnson

Delivered to Laboratory By: Gary L. Johnson

Received By: Gary L. Johnson

Date/Time Received At Laboratory: 06-27-11/1305

Preservation: On Ice, HNO_3, HCl, H_2SO_4 NaOH

Parameter	Result	Units of Measure	Analytical Method	Date/Time Analysis Started	Analyst	Data Qualifiers
Hardness	1,060	mg/L	SM18 2340C	06-30-11/1300	GLJ	2
Antimony	<0.010	mg/L	EPA 200.7	07-05-11/1735	Subcontracted	
Arsenic	<0.010	mg/L	EPA 200.7	07-05-11/1735	Subcontracted	
Beryllium	<0.001	mg/L	EPA 200.7	07-05-11/1735	Subcontracted	
Cadmium	<0.002	mg/L	EPA 200.7	07-05-11/1735	Subcontracted	
Chromium	<0.005	mg/L	EPA 200.7	07-05-11/1735	Subcontracted	
Copper	<0.005	mg/L	EPA 200.7	07-05-11/1735	Subcontracted	
Lead	<0.006	mg/L	EPA 200.7	07-05-11/1735	Subcontracted	
Nickel	<0.005	mg/L	EPA 200.7	07-05-11/1735	Subcontracted	
Selenium	<0.010	mg/L	EPA 200.7	07-05-11/1735	Subcontracted	
Silver	<0.005	mg/L	EPA 200.7	07-05-11/1735	Subcontracted	
Thallium	<0.020	mg/L	EPA 200.7	07-05-11/1735	Subcontracted	
Zinc	0.010	mg/L	EPA 200.7	07-05-11/1735	Subcontracted	
Mercury	<0.0002	mg/L	EPA 245.1	07-06-11/1403	Subcontracted	
Cyanide	<0.005	mg/L	SM18 4500-CN E	07-01-11	Subcontracted	5
Phenols	0.07	mg/L	SM18 5530B/C	07-19-11/1500	Subcontracted	5

EMS, Inc.
Certificate of Analysis

Client: Wythe County Wastewater Department

Sample No.: 11-2493

Parameter	Result	Units of Measure	Analytical Method	Date/Time Analysis Started	Analyst	Data Qualifiers
Acrolein	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
Acrylonitrile	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
Benzene	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
Bromodichloromethane	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
Bromoform	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
Bromomethane	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
Carbon tetrachloride	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
Chlorobenzene	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
Chloroethane	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
2-Chloroethylvinyl ether	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
Chloroform	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
Chloromethane	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
Dibromochloromethane	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
1,2-Dichlorobenzene	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
1,3-Dichlorobenzene	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
1,4-Dichlorobenzene	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
1,1-Dichloroethane	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
1,2-Dichloroethane	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
1,1-Dichloroethene	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
trans-1,2-Dichloroethene	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
1,2-Dichloropropane	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
cis-1,3-Dichloropropene	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
trans-1,3-Dichloropropene	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
Ethylbenzene	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
Methylene Chloride	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
1,1,2,2-Tetrachloroethane	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
Tetrachloroethene	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
Toluene	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
1,1,1-Trichloroethane	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
1,1,2-Trichloroethane	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
Trichloroethene	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
Trichlorofluoromethane	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5
Vinyl Chloride	<5.0	µg/L	EPA 624	07-01-11	Subcontracted	5

EMS, Inc.
Certificate of Analysis

Client: Wythe County Wastewater Department

Sample No.: 11-2493

Parameter	Result	Units of Measure	Analytical Method	Date/Time Analysis Started	Analyst	Data Qualifiers
Acenaphthene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Acenaphthylene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Anthracene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Benzidine	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Benzo(a) anthracene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Benzo(b) fluoranthene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Benzo(k) fluoranthene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Benzo (g,h,i) perylene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Benzo(a) pyrene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
bis-(2-Chloroethoxy) methane	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
bis-(2-Chloroethyl) ether	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
bis-(2-Chloroisopropyl) ether	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
bis-(2-Ethylhexyl) phthalate	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
4-Bromophenyl phenyl ether	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Butyl benzyl phthalate	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
2-Chloronaphthalene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
4-Chloro-3-methylphenol	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
2-Chlorophenol	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
4-Chlorophenyl phenyl ether	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Chrysene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Dibenzo(a,h) anthracene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Di-n-butyl phthalate	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
1,2-Dichlorobenzene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
1,3-Dichlorobenzene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
1,4-Dichlorobenzene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
3,3-Dichlorobenzidine	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
2,4-Dichlorophenol	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Diethyl phthalate	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
2,4-Dimethylphenol	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Dimethyl phthalate	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
4,6-Dinitro-2-methylphenol	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
2,4-Dinitrophenol	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
2,4-Dinitrotoluene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
2,6-Dinitrotoluene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Di-n-octylphthalate	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
1,2-Diphenylhydrazine	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5

EMS, Inc.
Certificate of Analysis

Client: Wythe County Wastewater Department

Sample No.: 11-2493

Parameter	Result	Units of Measure	Analytical Method	Date/Time Analysis Started	Analyst	Data Qualifiers
Fluoranthene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Fluorene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Hexachlorobenzene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Hexachlorobutadiene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Hexachlorocyclopentadiene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Hexachloroethane	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Indeno(1,2,3-cd) pyrene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Isophorone	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Naphthalene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Nitrobenzene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
2-Nitrophenol	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
4-Nitrophenol	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
N-Nitrosodimethylamine	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
N-Nitrosodiphenylamine	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
N-Nitrosodi-n-propylamine	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Pentachlorophenol	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Phenanthrene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Phenol	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
Pyrene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
1,2,4-Trichlorobenzene	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
2,4,6-Trichlorophenol	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5
TCDD (Dioxin Screen)	<5.0	µg/L	EPA 625	07-18-11	Subcontracted	5

Data Qualifiers

2: Parameter not included in the Laboratory's NELAP Scope of Accreditation.

5: Analysis performed by a laboratory that is not NELAP Accredited.

Subcontracted Laboratories

EPA 200.7	Environmental Testing & Consulting, Inc.
EPA 245.1	Environmental Testing & Consulting, Inc.
SM18 4500-CN E	Primary Laboratories, Inc.
SM18 5530B/C	Primary Laboratories, Inc.
EPA 624	Primary Laboratories, Inc.
EPA 625	Primary Laboratories, Inc.

FACILITY NAME AND PERMIT NUMBER:

Fort Chiswell WWTP VA0074161

Form Approved 1/14/99. OMB Number 2040-0086

SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

E.1. Required Tests. PREVIOUSLY SUBMITTED TO DEQ

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

☐ chronic ☐ acute

E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

	Test number: _____	Test number: _____	Test number: _____
a. Test information.			
Test Species & test method number			
Age at initiation of test			
Outfall number			
Dates sample collected			
Date test started			
Duration			
b. Give toxicity test methods followed.			
Manual title			
Edition number and year of publication			
Page number(s)			
c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.			
24-Hour composite			
Grab			
d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each.			
Before disinfection			
After disinfection			
After dechlorination			

FACILITY NAME AND PERMIT NUMBER:

Fort Chiswell WWTP VA0074161

Form Approved 1/14/99
OMB Number 2040-0086

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA,CERCLA, or other remedial wastes must complete part F.

GENERAL INFORMATION:

F.1. Pretreatment program. Does the treatment works have, or is subject ot, an approved pretreatment program?

☒ Yes ☐ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 2

b. Number of CIUs. 1

SIGNIFICANT INDUSTRIAL USER INFORMATION::

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Somic America

Mailing Address: 343 East Lee Trinkle Drive

Wytheville, VA 24382

F.4. Industrial Processes. Describe all the industrial processes that affect or contribute to the SIU's discharge.

Metal Plating and Machining

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Machining of automotive parts and electro plating, finishing

Raw material(s): Various metals, including Zn, Cu, Pb, Ni, Ag

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharge into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

33000 gpd (____ continuous or X intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

2000 gpd (X continuous or ____ intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local limits ☒ Yes ☐ No

b. Categorical pretreatment standards ☒ Yes ☐ No

If subject to categorical pretreatment standards, which category and subcategory?

Metal Finishing and Electro Plating

F.8. **Problems at the Treatment Works Attributed to Waste Discharge by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

☐ Yes ☒ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail or dedicated pipe?

☐ Yes ☒ No (go to F.12)

F.10 **Waste transport.** Method by which RCRA waste is received (check all that apply):

☐ Truck ☐ Rail ☐ Dedicated Pipe

F.11 **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12 **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

☐ Yes (complete F.13 through F.15.) ☒ No

F.13 **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is excepted to originate in the next five years).

F.14 **Pollutants.** List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary.)

F.15 **Waste Treatment.**

a. Is this waste treated (or will be treated) prior to entering the treatment works?

☐ Yes ☐ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

☐ Continuous ☐ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

Fort Chiswell WWTP VA0074161

Form Approved 1/14/99
OMB Number 2040-0086

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA,CERCLA, or other remedial wastes must complete part F.

GENERAL INFORMATION:

F.1. Pretreatment program. Does the treatment works have, or is subject ot, an approved pretreatment program?

☒ Yes ☐ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 2

b. Number of CIUs. 1

SIGNIFICANT INDUSTRIAL USER INFORMATION::

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: SVC Manufacturing - Gatorade (QTG)

Mailing Address: 316 Gator Lane

Wytheville, VA 24382

F.4. Industrial Processes. Describe all the industrial processes that affect or contribute to the SIU's discharge.

Beverage Production and Bottling, RO Filter Backwash

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Gatorade and Associated Beverages

Raw material(s): Water, Sweeteners, Confidential Ingredients

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharge into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

320000 gpd (X continuous or _____ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

5000 gpd (X continuous or _____ intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local limits ☒ Yes ☐ No

b. Categorical pretreatment standards ☐ Yes ☒ No

If subject to categorical pretreatment standards, which category and subcategory?

FACILITY NAME AND PERMIT NUMBER:

Fort Chiswell WWTP VA0074161

Form Approved 1/14/99
OMB Number 2040-0086

F.8. **Problems at the Treatment Works Attributed to Waste Discharge by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

☒ Yes ☐ No If yes, describe each episode.

Details included in annual pretreatment reports and other correspondence with DEQ.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail or dedicated pipe?

☐ Yes ☒ **No (go to F.12)**

F.10 **Waste transport.** Method by which RCRA waste is received (check all that apply):

☐ Truck ☐ Rail ☐ Dedicated Pipe

F.11 **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12 **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

☐ Yes (complete F.13 through F.15.) ☒ No

F.13 **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is excepted to originate in the next five years).

F.14 **Pollutants.** List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary.)

F.15 **Waste Treatment.**

a. Is this waste treated (or will be treated) prior to entering the treatment works?

☐ Yes ☐ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

☐ Continuous ☐ Intermittent If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

Fort Chiswell WWTP VA0074161

Form Approved 1/14/99
OMB Number 2040-0086

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA,CERCLA, or other remedial wastes must complete part F.

GENERAL INFORMATION:

F.1. Pretreatment program. Does the treatment works have, or is subject ot, an approved pretreatment program?

☒ Yes ☐ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 2

b. Number of CIUs. 1

SIGNIFICANT INDUSTRIAL USER INFORMATION::

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Amcor Rigid Plastics USA, Inc.

Mailing Address: 474 Gator Lane

Wytheville, VA 24382

F.4. Industrial Processes. Describe all the industrial processes that affect or contribute to the SIU's discharge.

Plastics Manufacturing, Condenser and Cooling Tower Blowdown

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Plastic Bottles

Raw material(s): PET Resin

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharge into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

17000 gpd (X continuous or _____ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

28000 gpd (X continuous or _____ intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local limits ☒ Yes ☐ No

b. Categorical pretreatment standards ☐ Yes ☒ No

If subject to categorical pretreatment standards, which category and subcategory?

F.8. Problems at the Treatment Works Attributed to Waste Discharge by the SIU. Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

☐ Yes ☒ No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. RCRA Waste. Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail or dedicated pipe?

☐ Yes ☒ **No (go to F.12)**

F.10 Waste transport. Method by which RCRA waste is received (check all that apply):

☐ Truck ☐ Rail ☐ Dedicated Pipe

F.11 Waste Description. Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12 Remediation Waste. Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

☐ Yes (complete F.13 through F.15.) ☒ No

F.13 Waste Origin. Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is excepted to originate in the next five years).

F.14 Pollutants. List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary.)

F.15 Waste Treatment.

a. Is this waste treated (or will be treated) prior to entering the treatment works?

☐ Yes ☐ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

☐ Continuous ☐ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

VPDES PERMIT APPLICATION ADDENDUM

1. **Entity to whom the permit is to be issued:** Wythe County Board of Supervisors
   Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.

2. **Is this facility located within city or town boundaries?** Y / N

3. **Provide the tax map parcel number for the land where the discharge is located.** 44-54A

4. **For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities?** 10 acres

5. **What is the design average effluent flow of this facility?** 1.25 MGD
   For industrial facilities, provide the max. 30-day average production level, include units:
   _____

   In addition to the design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels? Y / N
   If "Yes", please identify the other flow tiers (in MGD) or production levels: **Potential flow and capacity impact from industrial park, request flow tiers of: 1.5 mgd, 2.0 mgd, 2.5 mgd.**

   Please consider the following questions for both the flow tiers and the production levels (if applicable): Do you plan to expand operations during the next five years? Is your facility's design flow considerably greater than your current flow?

6. **Nature of operations generating wastewater:**
   Industrial Park and commercial facilities, domestic;

   25 % of flow from domestic connections/sources
   Number of private residences to be served by the treatment works: Approx. 550

   75 % of flow from non-domestic connections/sources

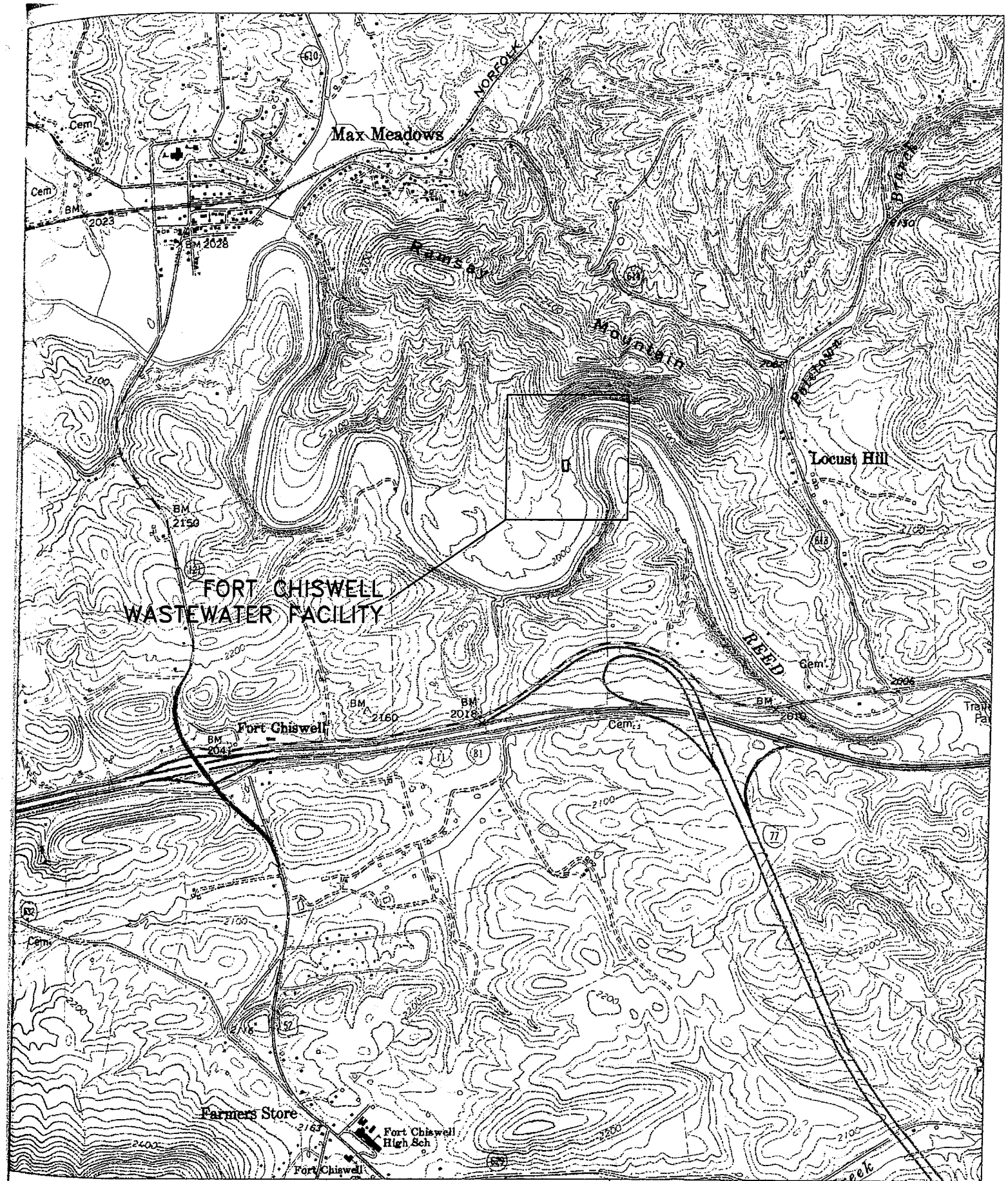
7. **Mode of discharge:** ____Continuous **X** Intermittent ____Seasonal
   Describe frequency and duration of intermittent or seasonal discharges:
   Sequencing Batch Reactor Treatment varies, but typically every 2 hours or less.

8. **Identify the characteristics of the receiving stream at the point just above the facility's discharge point:**
   X Permanent stream, never dry
   ____ Intermittent stream, usually flowing, sometimes dry
   ____ Ephemeral stream, wet-weather flow, often dry
   ____ Effluent-dependent stream, usually or always dry without effluent flow
   ____ Lake or pond at or below the discharge point
   ____ Other: _____

9. **Approval Date(s):**
   O & M Manual 2006 Permit **Sludge/Solids Management Plan 2006 permit**

   Have there been any changes in your operations or procedures since the above approval dates? Y / N

APPENDIX A

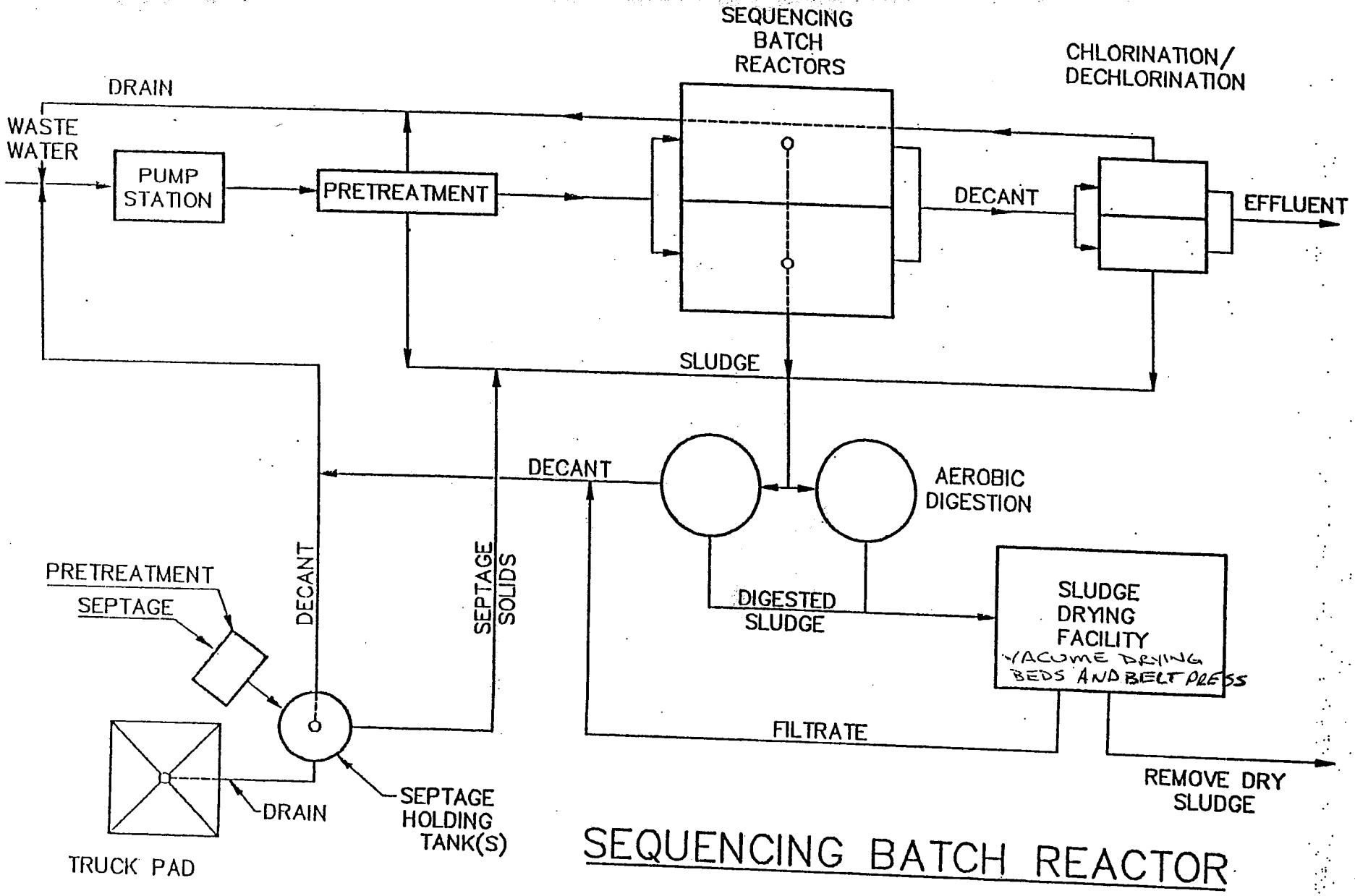


Pentree Incorporated
Consulting Engineers

FORT CHISWELL
WASTEWATER FACILITY
WYTHE COUNTY, VA.

SCALE: 1" =2000'

SHEET 1 OF 1 | DATE: OCTOBER, 2005



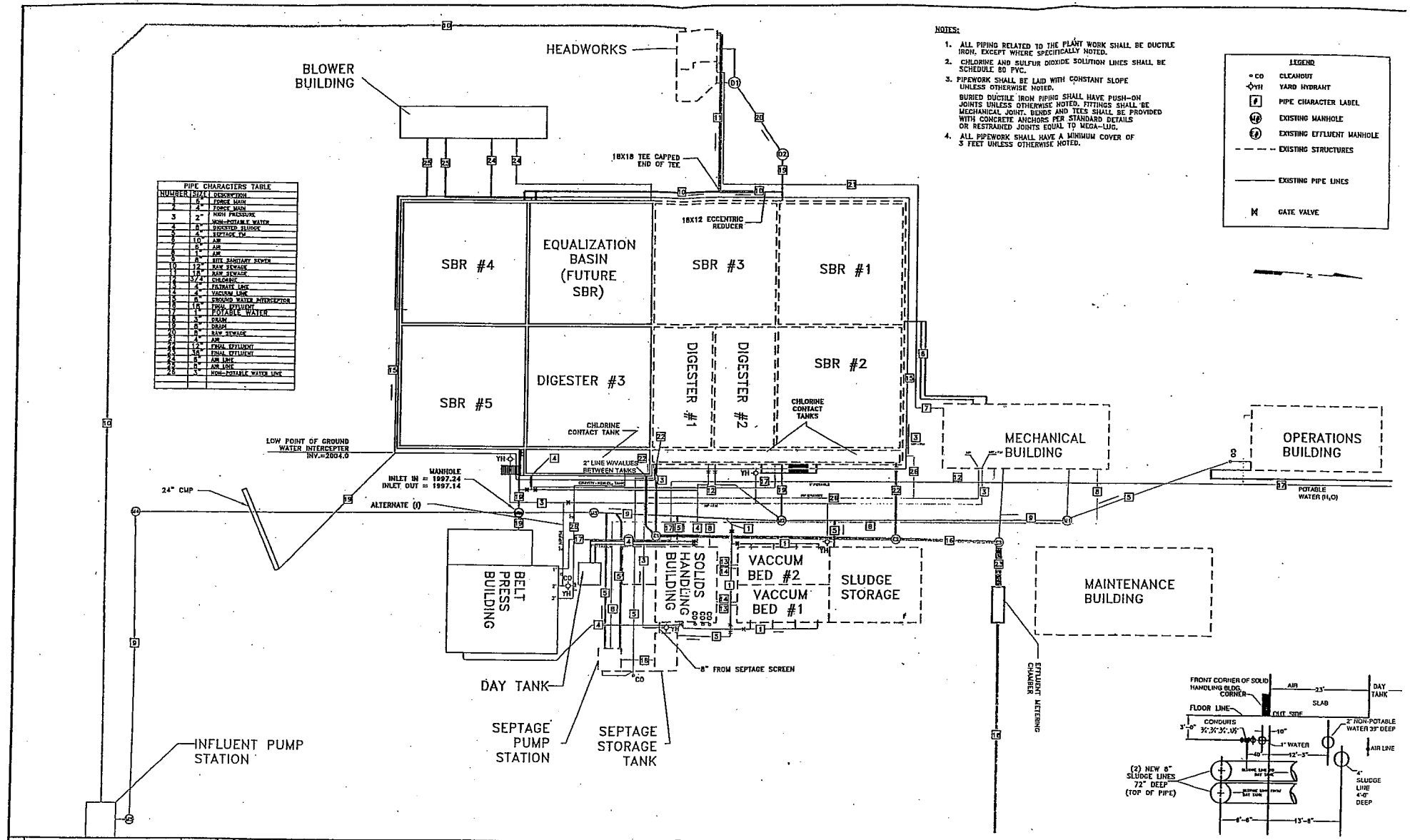
SEQUENCING BATCH REACTOR

ANDERSON AND ASSOCIATES, Inc.
Engineers
Surveyors
Planners
Blacksburg, VA
Greensboro, NC

FIGURE 4

DRAWN	SCALE	DATE	DOCUMENT NO.
AJR	N.T.S.	2-12-99	09414-00

ACAD 9414RFA



NOTES:

1. ALL PIPING RELATED TO THE PLANT WORK SHALL BE DUCTILE IRON, EXCEPT WHERE SPECIFICALLY NOTED.
2. CHLORINE AND SULFUR DIOXIDE SOLUTION LINES SHALL BE SCHEDULE 80 PVC.
3. PIPEWORK SHALL BE LAID WITH CONSTANT SLOPE UNLESS OTHERWISE NOTED.

   BURIED DUCTILE IRON PIPING SHALL HAVE PUSH-ON JOINTS UNLESS OTHERWISE NOTED. FITTINGS SHALL BE MECHANICAL JOINT. BENDS AND TEES SHALL BE PROVIDED WITH CONCRETE ANCHORS PER STANDARD DETAILS OR RESTRAINED JOINTS EQUAL TO MEGA-LUG.
4. ALL PIPEWORK SHALL HAVE A MINIMUM COVER OF 3 FEET UNLESS OTHERWISE NOTED.

LEGEND

- CO CLEANOUT
- YH YARD HYDRANT
- # PIPE CHARACTER LABEL
- MH EXISTING MANHOLE
- EE EXISTING EFFLUENT MANHOLE
- EXISTING STRUCTURES
- EXISTING PIPE LINES
- M GATE VALVE

PIPE CHARACTERS TABLE

NUMBER	SIZE	DESCRIPTION
1	6"	FORCE MAIN
2	4"	FORCE MAIN
3	2"	NON PRESSURE NON-POTABLE WATER
4	8"	DIGESTED SLUDGE
5	4"	SEPTAGE FM
6	10"	AIR
7	6"	AIR
8	1"	AIR
9	8"	SITE SANITARY SEWER
10	12"	RAW SEWAGE
11	18"	RAW SEWAGE
12	3/4	CHLORINE
13	4"	FILTRATE LINE
14	4"	VACUUM LINE
15	8"	GROUND WATER INTERCEPTOR
16	16"	FINAL EFFLUENT
17	1"	POTABLE WATER
18	3"	DRAIN
19	8"	DRAIN
20	8"	RAW SEWAGE
21	4"	AIR
22	12"	FINAL EFFLUENT
23	36"	FINAL EFFLUENT
24	8"	AIR LINE
25	8"	AIR LINE
26	3"	NON-POTABLE WATER LINE

NO.	REVISIONS	DATE	BY

Pentree Incorporated
Consulting Engineers ©

WYTHE COUNTY BOARD of SUPERVISORS
FORT CHISWELL WASTEWATER TREATMENT PLANT UPGRADE
CONTRACT 2
WYTHE COUNTY, VIRGINIA

NOTE:
EXISTING INFORMATION PROVIDED BY WYTHE COUNTY BOARD OF SUPERVISORS

COMMONWEALTH OF VIRGINIA
DANIEL R. SHORTRIDGE
10/16/06

SITE PIPING PLAN

SHEET:	A-4
DATE:	8-11-2006
DRAWN BY:	CEI/CDF
CHECKED BY:	JWT
APPROVED BY:	DRS
ACAD DIR:	FT. WYTHE-002
ACAD FILE:	SITE PIPING
HOR. SCALE:	1"=20'-0"

Sewage Sludge Permit Application
Ft. Chiswell/Max Meadows WWTP
VPDES # VA0074161
July 25, 2011

Prepared by
Wythe Co. Water & Wastewater Dept.
Donald T. Crisp, Director

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SECTION A

FACILITY NAME: Fort Chiswell Wastewater Treatment Plant VPDES PERMIT NUMBER: VA0074161

VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM

SCREENING INFORMATION

This application is divided into sections. Sections A pertain to all applicants. The applicability of Sections B, C and D depend on your facility's sewage sludge use or disposal practices. The information provided on this page will help you determine which sections to fill out.

1. All applicants must complete Section A (General Information).

2. Will this facility generate sewage sludge? X Yes __No

   Will this facility derive a material from sewage sludge? __Yes _X_No

   If you answered Yes to either, complete Section B (Generation Of Sewage Sludge Or Preparation Of A Material Derived From Sewage Sludge).

3. Will this facility apply sewage sludge to the land? _X_Yes __No

   Will sewage sludge from this facility be applied to the land? _X_Yes __No

   If you answered No to both questions above, skip Section C.

   If you answered Yes to either, answer the following three questions:

   a. Will the sewage sludge from this facility meet the ceiling concentrations, pollutant concentrations, Class A pathogen reduction requirements and one of the vector attraction reduction requirements 1-8, as identified in the instructions?
   __Yes _X_No

   b. Will sewage sludge from this facility be placed in a bag or other container for sale or give-away for application to the land? __Yes _X_No

   c. Will sewage sludge from this facility be sent to another facility for treatment or blending? __Yes _X_No

   If you answered No to all three, complete Section C (Land Application Of Bulk Sewage Sludge).

   If you answered Yes to a, b or c, skip Section C.

4. Do you own or operate a surface disposal site? __Yes _X_No

   If Yes, complete Section D (Surface Disposal).

FACILITY NAME: Fort Chiswell Wastewater Treatment Plant VPDES PERMIT NUMBER: VA0074161

SECTION A. GENERAL INFORMATION

All applicants must complete this section.

1. Facility Information.
   a. Facility name: Fort Chiswell Wastewater Treatment Plant

   b. Contact person: Don Crisp, Jr.
   Title: Director
   Phone: (276) 637-4544
   c. Mailing address:
   Street or P.O. Box: 340 South Sixth Street
   City or Town: Wytheville State: VA Zip: 24382
   d. Facility location:
   Street or Route #: 613 Locust Hill Road
   County: Wythe
   City or Town: Max Meadows State: VA Zip: 24360
   e. Is this facility a Class I sludge management facility? __Yes _X_No
   f. Facility design flow rate: 1.25 MGD
   g. Total population served: 1450
   h. Indicate the type of facility:
   _X_Publicly owned treatment works (POTW)
   ___Privately owned treatment works
   ___Federally owned treatment works
   ___Blending or treatment operation
   ___Surface disposal site
   ___Other (describe):

2. Applicant Information. If the applicant is different from the above, provide the following:
   a. Applicant name:
   b. Mailing address:
   Street or P.O. Box:
   City or Town: _____ State: _____ Zip:
   c. Contact person:
   Title:
   Phone: ( )
   d. Is the applicant the owner or operator (or both) of this facility?
   _____owner _____ operator
   e. Should correspondence regarding this permit be directed to the facility or the applicant? (Check one)
   _____ facility _____ applicant

3. Permit Information.
   a. Facility's VPDES permit number (if applicable): VA0074161
   b. List on this form or an attachment, all other federal, state or local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:
   Permit Number: Type of Permit:
   _____
   _____

4. Indian Country. Does any generation, treatment, storage, application to land or disposal of sewage sludge from this facility occur in Indian Country? ___Yes _X_No If yes, describe:

5. Topographic Map. Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information. Maps should include the area one mile beyond all property boundaries of the facility:
   a. Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed.
   b. Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries.

   SEE Figure A5

6. Line Drawing. Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction.

   SEE Figure A6

7. Contractor Information. Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? __Yes _X_No
   If yes, provide the following for each contractor (attach additional pages if necessary).
   Name:
   Mailing address:
   Street or P.O. Box:
   City or Town: _____ State: _____ Zip:
   Phone: ( )
   Contractor's Federal, State or Local Permit Number(s) applicable to this facility's sewage sludge:

   If the contractor is responsible for the use and/or disposal of the sewage sludge, provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s).

8. Pollutant Concentrations. Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants which limits in sewage sludge have been established in 9 VAC 25-31-10 et seq. for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old. **SEE ATTACHED LABORATORY REPORT Appendix A**

POLLUTANT	CONCENTRATION (mg/kg dry weight)	SAMPLE DATE	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
Arsenic				
Cadmium				
Chromium				
Copper				
Lead				
Mercury				
Molybdenum				
Nickel				
Selenium				
Zinc				

9. Certification. Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of the application you have completed and are submitting:

   __X__Section A (General Information)
   __X__Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)
   __X__Section C (Land Application of Bulk Sewage Sludge)
   ____Section D (Surface Disposal)

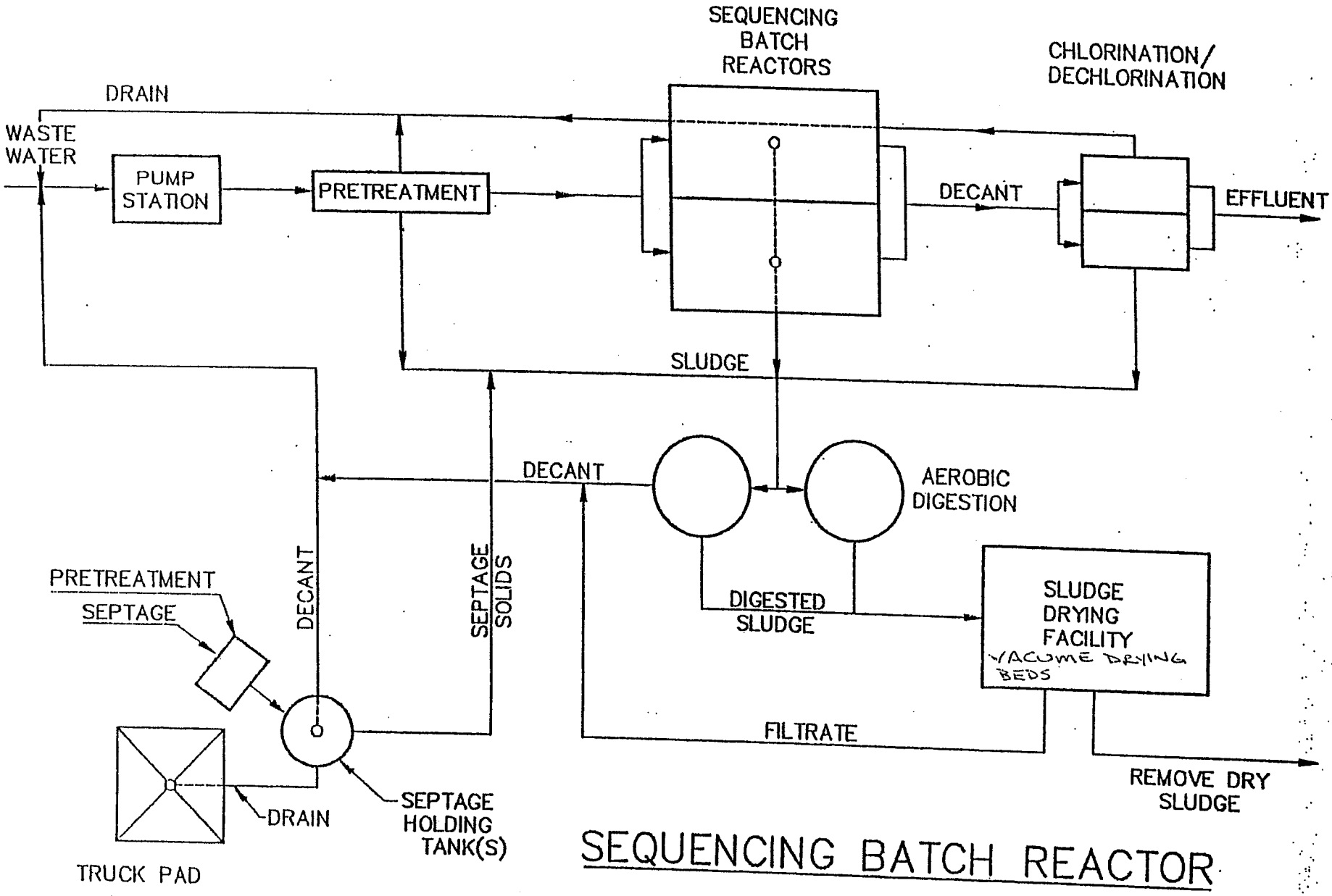


Figure A6

SEQUENCING BATCH REACTOR

ANDERSON AND ASSOCIATES, Inc.
Engineers
Surveyors
Planners
Blacksburg, VA
Greensboro, NC

FIGURE 4

DRAWN	SCALE	DATE	DOCUMENT NO.
AJR	N.T.S.	2-12-99	09414-00

FACILITY NAME: Fort Chiswell Wastewater Treatment Plant **VPDES PERMIT NUMBER: VA0074161**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title: R. Cellell Dalton, County Administrator

Signature R Cellell Dalton Date Signed 8-25-1

Telephone number: 276-223-6020

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

SECTION B

FACILITY NAME: Fort Chiswell Wastewater Treatment Plant VPDES PERMIT NUMBER: VA0074161

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. Amount Generated On Site.
   Total dry metric tons per 365-day period generated at your facility: 105 dry metric tons

2. Amount Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
   a. Facility name: Austinville Wastewater Treatment Plant
   b. Contact Person: Don Crisp, Jr.
      Title: Director, Wythe County Water & Wastewater
      Phone (276) 637-4544
   c. Mailing address:
      Street or P.O. Box: 340 South Sixth Street
      City or Town: Wytheville State: VA Zip: 24382
   d. Facility Address: Austinville, VA
      (not P.O. Box)
   e. Total dry metric tons per 365-day period received from this facility: 2 dry metric tons
   f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics:

3. Treatment Provided at Your Facility.
   a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
      ___Class A _X_Class B ___Neither or unknown
   b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: Aerobic digestion (60 day minimum), followed by drying on vacuum drying beds and/or belt press.

   c. Which vector attraction reduction option is met for the sewage sludge at your facility?
      _X_ Option 1 (Minimum 38 percent reduction in volatile solids)
      ___ Option 2 (Anaerobic process, with bench-scale demonstration)
      ___ Option 3 (Aerobic process, with bench-scale demonstration)
      ___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
      ___ Option 5 (Aerobic processes plus raised temperature)
      ___ Option 6 (Raise pH to 12 and retain at 11.5)
      ___ Option 7 (75 percent solids with no unstabilized solids)
      ___ Option 8 (90 percent solids with unstabilized solids)
      ___ None or unknown
   d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: Aerobic digestion followed by vacuum drying beds and/or belt press.

   e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: NONE

4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge).
   (If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)
   a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land: _____ dry metric tons
   b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away?

__Yes __No

5. Sale or Give-Away in a Bag or Other Container for Application to the Land.

(Complete this question if you place sewage sludge in a bag or other container for sale or give-away prior to land application. Skip this question if sewage sludge is covered in Question 4.)

a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land:_____ dry metric tons

b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.

6. Shipment Off Site for Treatment or Blending.

(Complete this question if sewage sludge from your facility is sent to another facility that provides treatment or blending. This question does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this question if the sewage sludge is covered in Questions 4 or 5. If you send sewage sludge to more than one facility, attach additional sheets as necessary.)

a. Receiving facility name:

b. Facility contact:
Title:
Phone: ( )

c. Mailing address:
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility: _____ dry metric tons

e. List, on this form or an attachment, the receiving facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the receiving facility's sewage sludge use or disposal practices:

Permit Number:	Type of Permit:
_____	
_____	

f. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility? __Yes __No
Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?
__Class A __Class B __Neither or unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge:

g. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge? __Yes __No
Which vector attraction reduction option is met for the sewage sludge at the receiving facility?
__ Option 1 (Minimum 38 percent reduction in volatile solids)
__ Option 2 (Anaerobic process, with bench-scale demonstration)
__ Option 3 (Aerobic process, with bench-scale demonstration)
__ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
__ Option 5 (Aerobic processes plus raised temperature)
__ Option 6 (Raise pH to 12 and retain at 11.5)
__ Option 7 (75 percent solids with no unstabilized solids)
__ Option 8 (90 percent solids with unstabilized solids)
__ None unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge:

h. Does the receiving facility provide any additional treatment or blending not identified in f or g above?
__Yes __No
If yes, describe, on this form or another sheet of paper, the treatment processes not identified in f or g above:

i. If you answered yes to f., g or h above, attach a copy of any information you provide to the receiving facility

to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.G.

j Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? ___Yes ___No
If yes, provide a copy of all labels or notices that accompany the product being sold or given away.

k. Will the sewage sludge be transported to the receiving facility in a truck-mounted watertight tank normally used for such purposes? ___ Yes ___ No. If no, provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility.
Show the haul route(s) on a location map or briefly describe the haul route below and indicate the days of the week and the times of the day sewage sludge will be transported.

7. Land Application of Bulk Sewage Sludge.
(Complete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6; complete Question 7.b, c & d only if you are responsible for land application of sewage sludge.)

a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites: 0 dry metric tons

b. Do you identify all land application sites in Section C of this application? _X_Yes ___No
If no, submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in accordance with the instructions).

c. Are any land application sites located in States other than Virginia? ___Yes _X_No
If yes, describe, on this form or on another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

d. Attach a copy of any information you provide to the owner or lease holder of the land application sites to comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples may be obtained in Appendix IV).

8. Surface Disposal.
(Complete Question 8 if sewage sludge from your facility is placed on a surface disposal site.)

a. Total dry metric tons per 365-day period of sewage sludge from your facility placed on all surface disposal sites: _____ dry metric tons

b. Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?
___Yes ___No
If no, answer questions c - g for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one surface disposal site, attach additional pages as necessary.

c. Site name or number:

d. Contact person:
Title:
Phone: ( )
Contact is: ___Site Owner ___Site operator

e. Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

f. Total dry metric tons per 365-day period of sewage sludge from your facility placed on this surface disposal site: _____ dry metric tons

g. List, on this form or an attachment, the surface disposal site VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the sewage sludge use or disposal practices at the surface disposal site:

Permit Number:	Type of Permit:
_____	
_____	

9. Incineration.
(Complete Question 9 if sewage sludge from your facility is fired in a sewage sludge incinerator.)

a. Total dry metric tons per 365-day period of sewage sludge from your facility fired in a sewage sludge incinerator: _____ dry metric tons

b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired? ___Yes ___No
If no, answer questions c - g for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one sewage sludge incinerator, attach additional pages as necessary.

c. Incinerator name or number:

d. Contact person:
Title:
Phone: ( )
Contact is: ___Incinerator Owner ___Incinerator Operator

e. Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

f. Total dry metric tons per 365-day period of sewage sludge from your facility fired in this sewage sludge incinerator: _____ dry metric tons

g. List on this form or an attachment the numbers of all other federal, state or local permits that regulate the firing of sewage sludge at this incinerator:

Permit Number:	Type of Permit:
_____	
_____	

10. Disposal in a Municipal Solid Waste Landfill.

(Complete Question 10 if sewage sludge from your facility is placed on a municipal solid waste landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.)

a. Landfill name: New River Resource Authority

b. Contact person: Joseph Levine
Title: Executive Director
Phone: (540) 674-1677
Contact is: ___Landfill Owner _X_Landfill Operator

c. Mailing address.
Street or P.O. Box: P.O. Box 1246
City or Town: Dublin State: VA Zip: 24084

d. Landfill location.
Street or Route #: 7100 Cloyds Mtn. Road
County: Pulaski
City or Town: Dublin State: VA Zip: 24084

e. Total dry metric tons per 365-day period of sewage sludge placed in this municipal solid waste landfill: 490 dry metric tons

f. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the operation of this municipal solid waste landfill:

Permit Number:	Type of Permit:
_____	
_____	

g. Does sewage sludge meet applicable requirements in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq., concerning the quality of materials disposed in a municipal solid waste landfill? _X_Yes ___No

h. Does the municipal solid waste landfill comply with all applicable criteria set forth in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq.? _X_Yes ___No

i. Will the vehicle bed or other container used to transport sewage sludge to the municipal solid waste landfill be watertight and covered? _X__ Yes ___ No
Show the haul route(s) on a location map or briefly describe the route below and indicate the days of the week and time of the day sewage sludge will be transported.
Locust Hill Road to East Lee Hwy, North on East Leey Hwy to I-81 North
I-81 North to Exit 98, Route 100 North to Cloyds Mtn. Road

SECTION C

FACILITY NAME: Fort Chiswell Wastewater Treatment Plant VPDES PERMIT NUMBER: VA0074161

SECTION C. LAND APPLICATION OF BULK SEWAGE SLUDGE

Complete this section for sewage sludge that is land applied unless any of the following conditions apply:
The sewage sludge meets the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements and one of the vector attraction reduction options 1-8 (fill out B.4 instead) (EQ Sludge); or
The sewage sludge is sold or given away in a bag or other container for application to the land (fill out B.5 instead); or
You provide the sewage sludge to another facility for treatment or blending (fill out B.6 instead).
Complete Section C for every site on which the sewage sludge that you reported in B.7 is land applied.

1. Identification of Land Application Site.
   a. Site name or number: 1, 3, 4, 5
   b. Site location (Complete i and ii)
      i. Street or Route#: Locust Hill Road (Site 1), Peppers Ferry Road (Sites 3-5)
      County: Wythe
      City or Town: N/A State: VA Zip: N/A
      ii. Latitude: Site 1: 36°57'30" Sites 3-5: 36°58'00" Longitude: Site 1: 80°55'50" Sites 3-5: 81°01'00"
      Method of latitude/longitude determination
      X USGS map _____ Filed survey _____ Other
   c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.

2. Owner Information.
   a. Are you the owner of this land application site? X Yes (Sites 3-5) X No (Site 1)
   b. If no, provide the following information about the owner:
   Name: Agnes Davis
   Street or P.O. Box: 2484 East Lee Highway
   City or Town: Max Meadows State: VA Zip: 24360
   Phone: (276) 637-3216

3. Applier Information:
   a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? X Yes __No
   b. If no, provide the following information for the person who applies the sewage sludge:
   Name:
   Street or P.O. Box:
   City or Town:_____ State:_____ Zip:
   Phone: ( )
   c. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the person who applies sewage sludge to this land application site:
   Permit Number: Type of Permit:
   _____
   _____

4. Site Type. Identify the type of land application site from among the following:
   X Agricultural land __Reclamation site __Forest
   __Public contact site __Other. Describe

5. Vector Attraction Reduction.
   Are any vector attraction reduction requirements met when sewage sludge is applied to the land application site?
   ___Yes X No If yes, answer a and b.
   a. Indicate which vector attraction reduction option is met:
      __ Option 9 (Injection below land surface)
      __ Option 10 (Incorporation into soil within 6 hours)
   b. Describe, on this form or on another sheet of paper, any treatment processes used at the land application site to reduce the vector attraction properties of sewage sludge:

6. Cumulative Loadings and Remaining Allotments.

(Complete Question 6 only if the sewage sludge applied to this site since July 20, 1993 is subject to the cumulative pollutant loading rates (CPLRs) - see instructions.)

a. Have you contacted DEQ or the permitting authority in the state where the sewage sludge subject to the CPLRs will be applied to ascertain whether bulk sewage sludge subject to the CPLRs has been applied to this site since July 20, 1993? ___Yes ___No
If no, sewage sludge subject to the CPLRs may not be applied to this site.
If yes, provide the following information:
Permitting authority:
Contact person:
Phone:( )

b. Based upon this inquiry, has bulk sewage sludge subject to the CPLRs been applied to this site since July 20, 1993? ___Yes ___No If no, skip the rest of Question 6. If yes, answer questions c - e.

c. Site size, in hectares: _____ (one hectare = 2.471 acres)

d. Provide the following information for every facility other than yours that is sending or has sent sewage sludge subject to the CPLRs to this site since July 20, 1993. If more than one such facility sends sewage sludge to this site, attach additional pages as necessary.
Facility name:
Facility contact:
Title:
Phone: ( )
Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

e. Provide the total loading and allotment remaining, in kg/hectare, for each of the following pollutants:

	Cumulative loading	Allotment remaining
Arsenic	_____	
Cadmium	_____	
Copper	_____	
Lead	_____	
Mercury	_____	
Nickel	_____	
Selenium	_____	
Zinc	_____	

Complete Questions 7-12 below only if you apply sewage sludge, or you are responsible for land application of sewage sludge. Information required by these questions may be prepared as attachments to this form. Skip the following questions if you contract land application to someone else (as indicated under Section A.7) who is responsible for the operation.

7. Sludge Characterization. Use the table below or a separate attachment, provide at least one analysis for each parameter. See Appendix A

PCBs (mg/kg)
pH (S. U.)
Percent Solids (%)
Ammonium Nitrogen (mg/kg)
Nitrate Nitrogen (mg/kg)
Total Kjeldahl Nitrogen (mg/kg)
Total Phosphorus (mg/kg)
Total Potassium (mg/kg)
Alkalinity as $CaCO_3$* (mg/kg)

* Lime treated sludge (10% or more lime by dry weight) should be analyzed for percent $CaCO_3$.

8. Storage Requirements.
Existing and proposed sludge storage facilities must provide an estimated annual sludge balance on a monthly basis incorporating such factors as storage capacity, sludge production and land application schedule. Include pertinent calculations justifying storage requirements.
Proposed sludge storage facilities must also provide the following information:

a. A sludge storage site layout on a 7.5 minute topographic quadrangle or other appropriate scaled map to show the following topographic features of the surrounding landscape to a distance of 0.25 mile. Clearly mark the property line. **See figures C8-1 and C8-2**
   1) Water wells, abandoned or operating
   2) Surface waters
   3) Springs
   4) Public water supply(s)
   5) Sinkholes
   6) Underground and/or surface mines
   7) Mine pool (or other) surface water discharge points
   8) Mining spoil piles and mine dumps
   9) Quarry(s)
   10) Sand and gravel pits
   11) Gas and oil wells
   12) Diversion ditch(s)
   13) Agricultural drainage ditch(s)
   14) Occupied dwellings, including industrial and commercial establishments
   15) Landfills or dumps
   16) Other unlined impoundments
   17) Septic tanks and drainfields
   18) Injection wells
   19) Rock outcrops

b. A topographic map of sufficient detail to clearly show the following information:
   1) Maximum and minimum percent slopes
   2) Depressions on the site that may collect water
   3) Drainageways that may attribute to rainfall run-on to or runoff from this site
   4) Portions of the site (if any) which are located with the 100-year floodplain and how the storage facility will be protected from flooding

c. Data and specifications for the storage facility lining material.

d. Plan and cross-sectional views of the storage facility.

e. Depth from the bottom of the storage facility to the seasonal high water table and separation distance to the permanent water table.

9. Land Area Requirements. Provide calculations justifying the land area requirements for land application of sewage sludge taking into consideration average soil productivity group, crop(s) to be grown and most limiting factor(s) of the sewage sludge, specifically Plant Available Nitrogen (PAN), Calcium Carbonate Equivalence (CCE), and metal loadings (CPLR sewage sludge only), where applicable. Relate PAN, CCE, and metal loadings to demonstrate the most limiting factor for land application. **See Continuation Sheet C9**

10. Landowner Agreement Forms. Provide a properly completed Sewage Sludge Application Agreement Form (attached) for each landowner if sewage sludge is to be applied onto land not owned by the applicant. **See Appendix B**

11. Ground Water Monitoring.
Are any ground water monitoring data available for this land application site? ___Yes _X_ No
If yes, submit the ground water monitoring data with this permit application. Also submit a written description of the well locations, approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.

12. Land Application Site Information.
(Complete Items a-d for sites receiving infrequent application - land application of sewage sludge up to the agronomic rate at a frequency of once in a 3 year period; complete Items a-h for sites receiving frequent application - land application of sewage sludge in excess of 70% the agronomic rate at a frequency greater than once in a 3 year period)

a. Provide a general location map for each county which clearly indicates the location of all the land application sites. See Figures c12-1 and C12-2

b. For each land application site provide a site plan of sufficient detail to clearly show the concerned landscape features and associated buffer zones (See instructions). Provide a legend for each landscape feature and the net acreage for each field taking into account the proposed buffer zones. See Figures C12-3,4,6,7.

c. In order to ensure that land application of bulk sewage sludge will not impact federally listed threatened or endangered species or federally designated critical habitat, the applicant must notify the field office of the U. S. Department of the Interior, Fish and Wildlife Service (FWS), by a letter, the proposed land application activities with the identification of the land application sites. The address and phone number of FWS are provided below.

U. S. Fish and Wildlife Service
Virginia Field Office
6669 Short Lane
Gloucester, VA 23061
TEL: (804)693-6694

Provide a copy of the notification letter with this application form. See Appendix D

d. Provide a soil survey map, preferably photographically based, with the field boundaries clearly marked. (A USDA-SCS soil survey map should be provided, if available.)
Provide a detailed legend for each soil survey map which uses accepted USDA-SCS descriptions of the typifying pedon for each soil series (soil type). Complex associations may be described as a range of characteristics. Soil descriptions shall include as a minimum the following information.

1) Soil symbol
2) Soil series, textural phase and slope range
3) Depth to seasonal high water table
4) Depth to bedrock
5) Estimated soil productivity group (for the proposed crop rotation)

See Continuation Sheet C12 and Figures C12-3,4,5,7.

Item e - h are required for sites receiving frequent application of sewage sludge N/A

e. In order to verify the information provided in item d, characterize the soil at each land application site. Representative soil borings or test pits to a depth of five feet or to bedrock if shallower, are to be coordinated for the typifying pedon of each soil series (soil type). Soil descriptions shall include as a minimum the following information:

1). Soil symbol
2). Soil series, textural phase and slope range
3). Depth to seasonal high water table
4). Depth to bedrock
5). Estimated soil productivity group (for the proposed crop rotation)

f. Collect and analyze soil samples from each field, weighted to best represent each of the soil borings performed for Item e. Using the table below or a separate attachment, provide at least one analysis per sample for each of the following parameters.

Soil Organic Matter (%)
Soil pH (std. units)
Cation Exchange Capacity (meq/100g)
Total Nitrogen (ppm)
Organic Nitrogen (ppm)
Ammonia Nitrogen (ppm)
Nitrate Nitrogen (ppm)
Available Phosphorus (ppm)
Exchangeable Potassium (mg/100g)
Exchangeable Sodium (mg/100g)
Exchangeable Calcium (mg/100g)
Exchangeable Magnesium (mg/100g)
Arsenic (ppm)
Cadmium (ppm)
Copper (ppm)
Lead (ppm)
Mercury (ppm)
Molybdenum (ppm)
Nickel (ppm)
Selenium (ppm)
Zinc (ppm)
Manganese (ppm)
Particle Size Analysis or
USDA Textural Estimate (%)

g. Relate the crop nutrient needs to anticipated yields, soil productivity rating and the various fertilizer or nutrient sources from sludge and chemical fertilizers. Describe any specialized agronomic management practices which may be required as a result of high soil pH. If the sludge is expected to possess an unusually high CCE or other unusual properties, provide a description of any plant tissue testing, supplemental fertilization or intensive agronomic management practices which may be necessary.

h. Using a narrative format and referencing any related charts, describe the proposed cropping system. Show how the crop rotation and management will be coordinated with the design of the land application system. Include any supplemental fertilization program, soil testing and the coordination of tillage practices, planting and harvesting schedules and timing of land application.

Ft. Chiswell/Max Meadows WWTP
VPDES # VA0074161

VPDES Sewage Sludge Permit Application

SECTION C.8 Continued

Storage Requirements and Calculations

The following calculations are based on waste activated sludge production at the current flow of .500 MGD. Sludge disposal for future increases in flows and sludge production will require sending excess sludge balance to land file and acquiring additional land application sites.

Estimated Sludge Balances:
= 2,860 lbs./day x 30 days = 85,808 lbs./mth or 85,808/2204.6 metric ton
= 40 metric tons/month

Estimated Sludge Production per year:
= 40 metric tons/month x 12 months
= 480 metric tons/ year

Sludge Storage Facility:
The sludge storage facility is located at the sewer treatment facility and is shown on the attached site plan of the plant Figure A5. A detail of the sludge facility is shown in Figure C9-2.

1. The sludge storage pad has a floor surface area of 1,360 square feet. Approximately ½ of this area is actually useable for storage. The remaining ½ is needed to access and remove sludge.

2. In addition, the vacuum beds are not in use they may also be used as storage. This adds an additional 1,320 square feet.

3. Sludge will be maintained at a height of approximately 3 feet. This provides approximately 6,000 cubic feet of dry sludge storage.

4. The sludge storage pad has a floor drain grate to capture any excess liquid that may cross the floor. The floor is sloped to drain. The discharge from the drain is returned to the on site sewer.

The approximate holding volume of this facility is **6,000 cubic feet** of dried sludge. The approximate density of de-watered sludge is 68-lbs./cubic foot (20% solids). The approximate estimated sludge production for this facility is 40 metric tons/mth.

40 metric tons/mth x 2,204.6 lbs./metric ton = 85,808 lbs./mth
Capacity of storage facility: = 6,000 cubic feet x 68 lbs./cubic foot
= 408,000 lbs/2204.6 lbs./metric ton
= 185 metric tons/40metric tons/mth
= 4.6 months of storage available*.

***Sludge that cannot be stored on site will be trucked to landfill.**

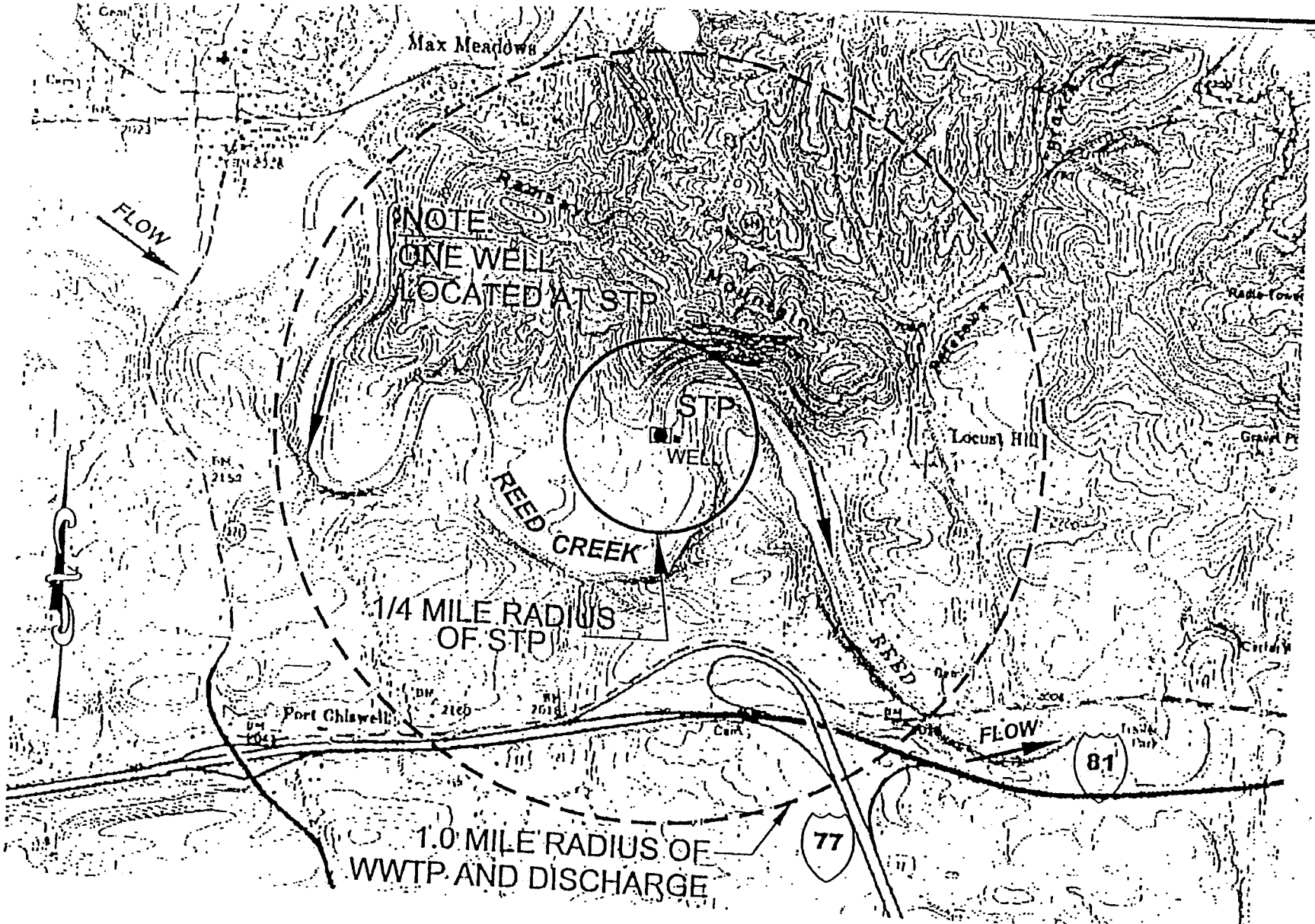
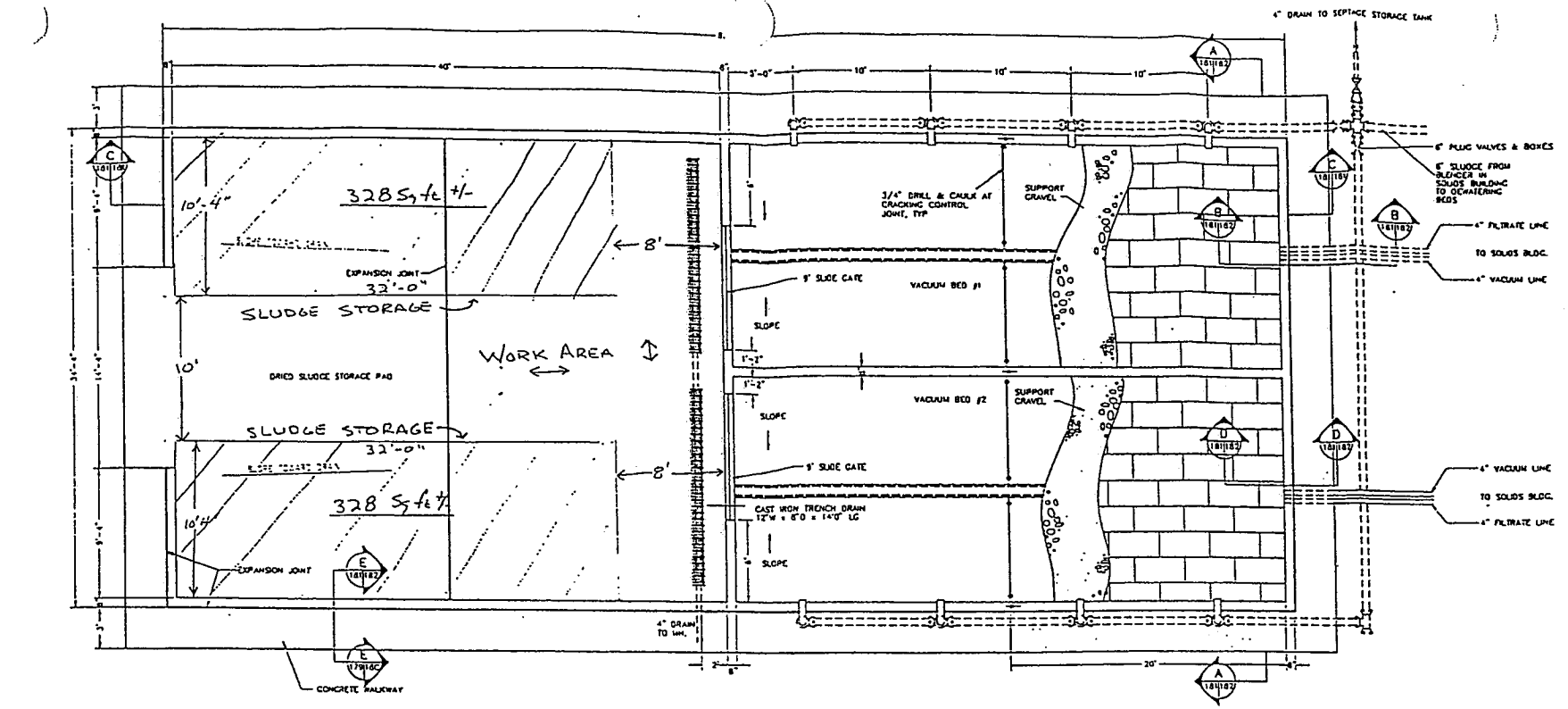


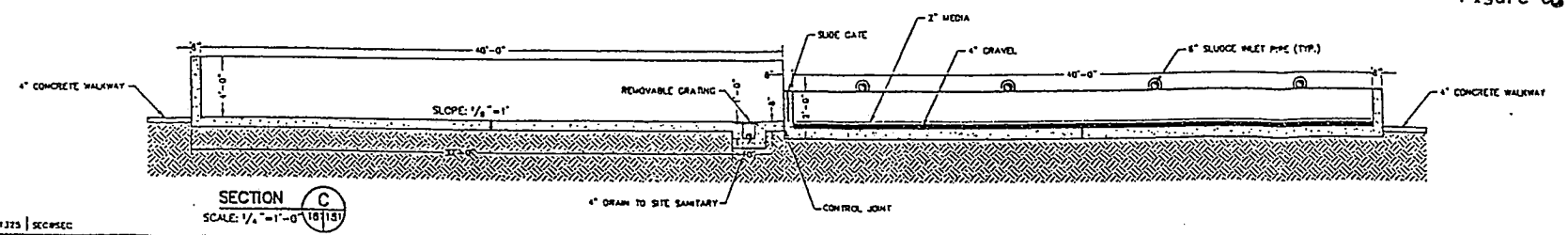
Figure C8-1

FORT CHISWELL STP
LOCATION MAP
PAGE 1 OF 1
SCALE: 1" = 2000'
JANUARY 1999

ed & Borlz, L.L.C.
CIVIL & ENVIRONMENTAL ENGINEERS



PLAN
SCALE: 1/4"=1'-0"



SECTION C
SCALE: 1/4"=1'-0"

Figure 08-2

ANDERSON AND ASSOCIATES, Inc. Engineers Surveyors Planners	Blacksburg, VA Greensboro, NC Richmond, VA Tri-Cities, TN	DATE : 01 NOV 93 SCALE : AS SHOWN DESIGNED: CSF DRAWN : SCC CHECKED: CSC	REVISIONS: 17 FEB 94 22 MAR 94	FORT CHISWELL/MAX MEADOWS WASTEWATER PROJECT WYTHE COUNTY, VIRGINIA	VACUUM DRYING BEDS PLAN	DOCUMENT NO. 11832-181 SHEET 181 OF 200

Ft. Chiswell/Max Meadows WWTP
VPDES # VA0074161

VPDES Sewage Sludge Permit Application

SECTION C.9 (continued)

Land Area Requirements:
The County has selected the following sites to land apply the sludge:

Ft. Chiswell STP Site (site 1)
Mrs. Agnes Davis owns the proposed application sites that adjoin the Ft. Chiswell sewer treatment plant property. The land is used for grazing cattle. One site with approximately 24 useable acres will be utilized for the land application of sludge. Soil classifications for this site are shown below and on Figure C12-1.

Progress Park Sites (sites 3-5)
Wythe County owns the land at the Progress Park on which the sludge will be applied. Site number two was deleted due to development. The park consists of 1,135 acres. A total of three (3) proposed application sites with 57.8 useable acres will be utilized for the land application of sludge in the industrial park. Soil classifications for these sites are shown below and on Figure C12-2.

Map	Site	Useable Acreage	Soil Series	Land Capability Classification**
Figure C12-1	1	24.0	Botetourt silt loam	IIe
	2	This site deleted		
Figure C12-2	3	15.0	Frederick & Hagerstown	IIIe, VIe
Figure C12-2	4	10.4	Frederick & Haerstown-Wurno	IIIe, IVe
Figure C12-2	5	32.4	Frederick & Marbie-Wyrick	IIIe, IIIe

Total useable acreage is 81.8acres.

* Information obtained from Soil Survey of Wythe County, VA, 1992, USDA.
** Various cropping categories as listed in soil survey.

Plant Available Nitrogen (PAN):
Plant available nitrogen (PAN) content calculated on a dry weight basis:

From sludge analysis dated 01/02/06, located in appendix A:

PAN = 19.04 lbs./dry ton

Ft. Chiswell/Max Meadows WWTP
VPDES # VA0074161

VPDES Sewage Sludge Permit Application

Nitrogen Application Rate:

Nitrogen Application Rate = [Crop Nitrogen Uptake (lbs./Acre)]
[Average Annual PAN (lbs./dry ton)]

Nitrogen Application Rate = Dry tons/Acre

Crop nutrient Recommendations[2]	
CROP	**Crop Nitrogen Uptake, lbs. N/Acre**
Corn grain/silage	110-130
Alfalfa	150-200
Pasture, Fescue/Orchard grass	80-120

1. Table 6-2, Biosolids Ammonium Nitrogen Availability Coefficient, Virginia Nutrient Management Standards and Criteria, Revised November 1995.

2. Table 3, Crop Nutrient Recommendations, Virginia Nutrient Management Standards and Criteria, Revised November 1995.

Limiting Factors
The wastewater treatment plant does not lime stabilize sludge. All fields which exhibit a soil pH of 6.8 or greater shall not receive any application of sludge with a calcium carbonate equivalency (CCE) of 20 percent or greater. Should any sludge exhibit a CCE equivalency greater than 20 percent, then the sludge application rate shall be adjusted to target a post-sludge application soil pH of 6.8. Soil pH results at the time of application shall not be over one year old.

The metal concentrations as reported are well below the pollutant concentrations as listed in Table 3 of 9 VAC 25-31-540. Metal concentrations are shown in appendix A.

Conclusion
Sludge application rates will be limited by the amount of sludge produced throughout the year and will be controlled by the plant available nitrogen (PAN) or soil pH. The application of sludge will be limited to pasture land and animal feed crops only. The application of sludge will be cycled at the rate of once every three (3) years per one acre site.

Ft. Chiswell/Max Meadows WWTP
VPDES # VA0074161

VPDES Sewage Sludge Permit Application

SECTION C.12.d (continued)

Land Application Site Information

Soil information provided below and shown on Figures C12-1 and C12-2 is based on the Soil Survey of Wythe County, Virginia conducted by the United States Department of Agriculture issued in 1992.

Application Site 1

1. Soils: 3B Boutourt silt loam, 2 to 7 percent slopes
2. Depth to seasonal high water table: 18 to 30 inches
3. Depth to bedrock: > 60 inches
4. Soil productivity group: IIe, IIIe

~~**Application Site 2** **Site Deleted**~~

~~1. Soils: 10B, Fredrick, 2 to 7 percent slopes~~
~~14D, Hagerstown-Wurno, 15 to 30 percent slopes~~
~~2. Depth to seasonal high water table: > 72 inches~~
~~3. Depth to bedrock: > 60 inches, 40 to 60 inches~~
~~4. Soil productivity group: IIIe, IVe~~

Application Site 3

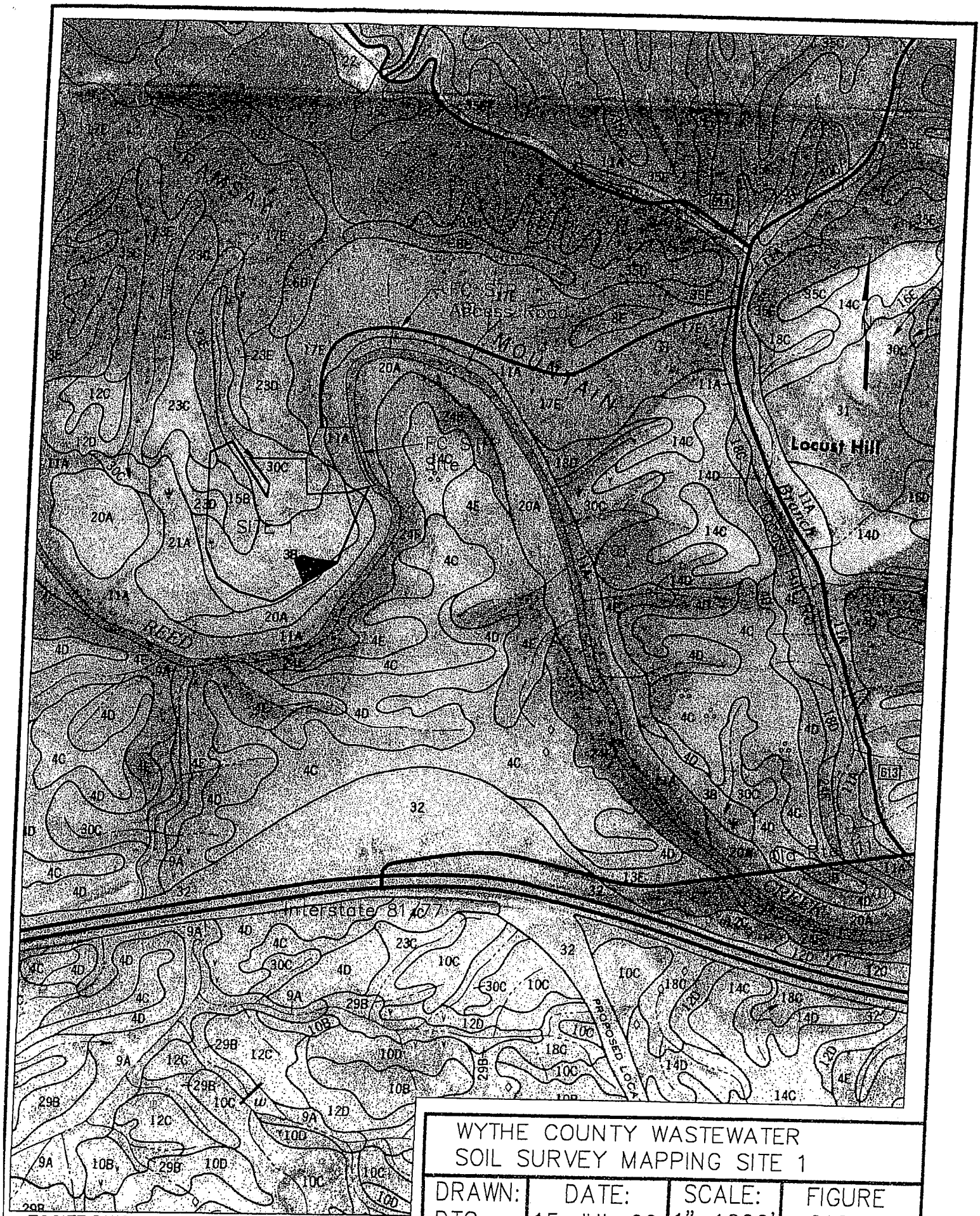
1. Soils: 10C, Fredrick, 7 to 15 percent slopes
   12D, Hagerstown Silt Loam, 15 to 30 percent slopes
2. Depth to seasonal high water table: > 72 inches
3. Depth to bedrock: > 60 inches, 40 to 60 inches
4. Soil productivity group: IIIe, VIe

Application Site 4

1. Soils: 10B, Fredrick, 2 to 7 percent slopes
   14C, Hagerstown-Wurno, 7 to 15 percent slopes
2. Depth to seasonal high water table: > 72 inches
3. Depth to bedrock: > 60 inches, 40 to 60 inches
4. Soil productivity group: IIIe, VIe

Application Site 5

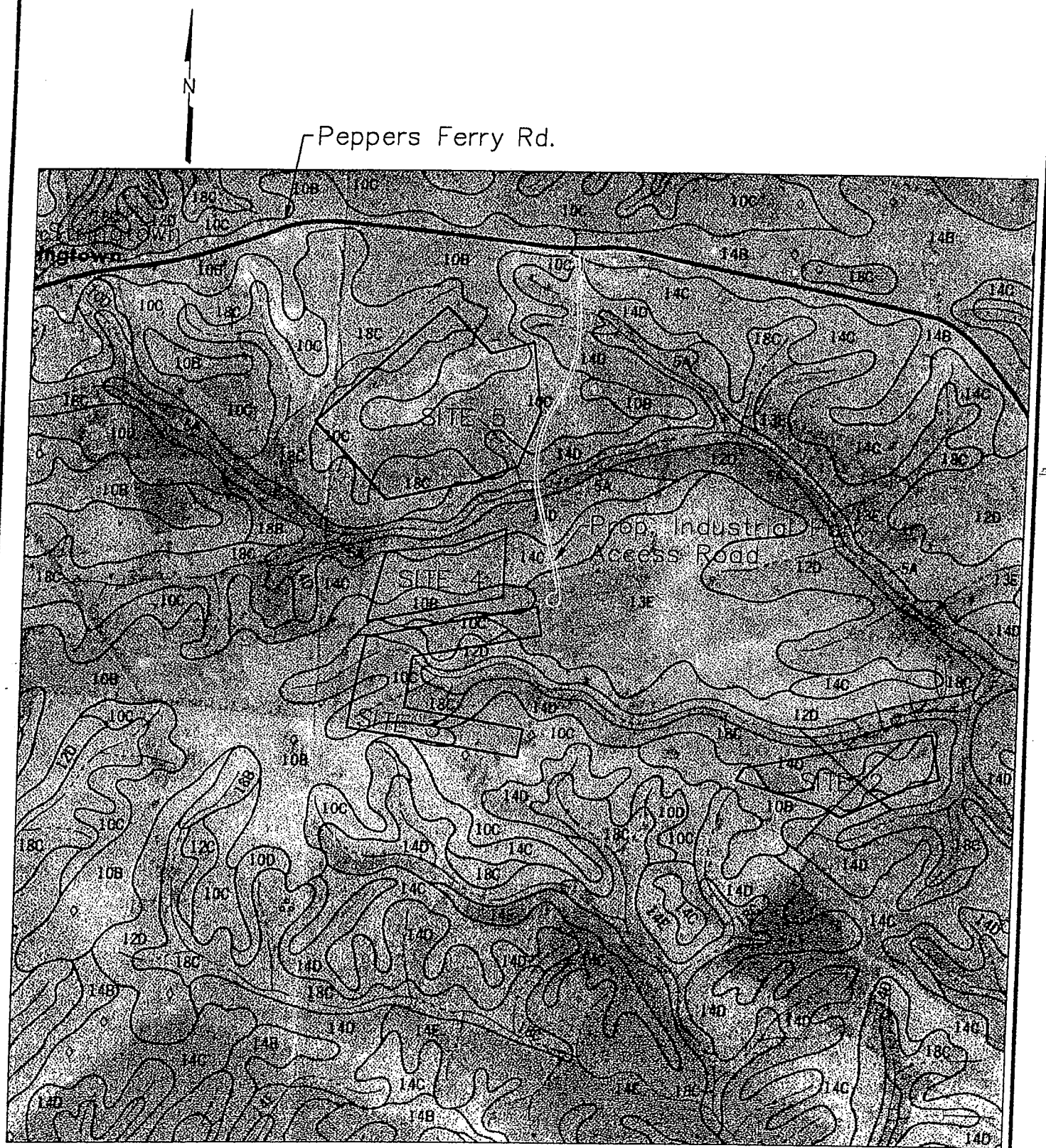
1. Soils: 10C, Fredrick, 7 to 15 percent slopes
   18C, Marbie-Wyrick, 7 to 15 percent slopes
2. Depth to seasonal high water table: > 72 inches
3. Depth to bedrock: > 60 inches
4. Soil productivity group: IIIe, IIIe



WYTHE COUNTY WASTEWATER
SOIL SURVEY MAPPING SITE 1

DRAWN:	DATE:	SCALE:	FIGURE
DTC	15 JUL 99	1"=1000'	C12-1

FCSITE.DWG

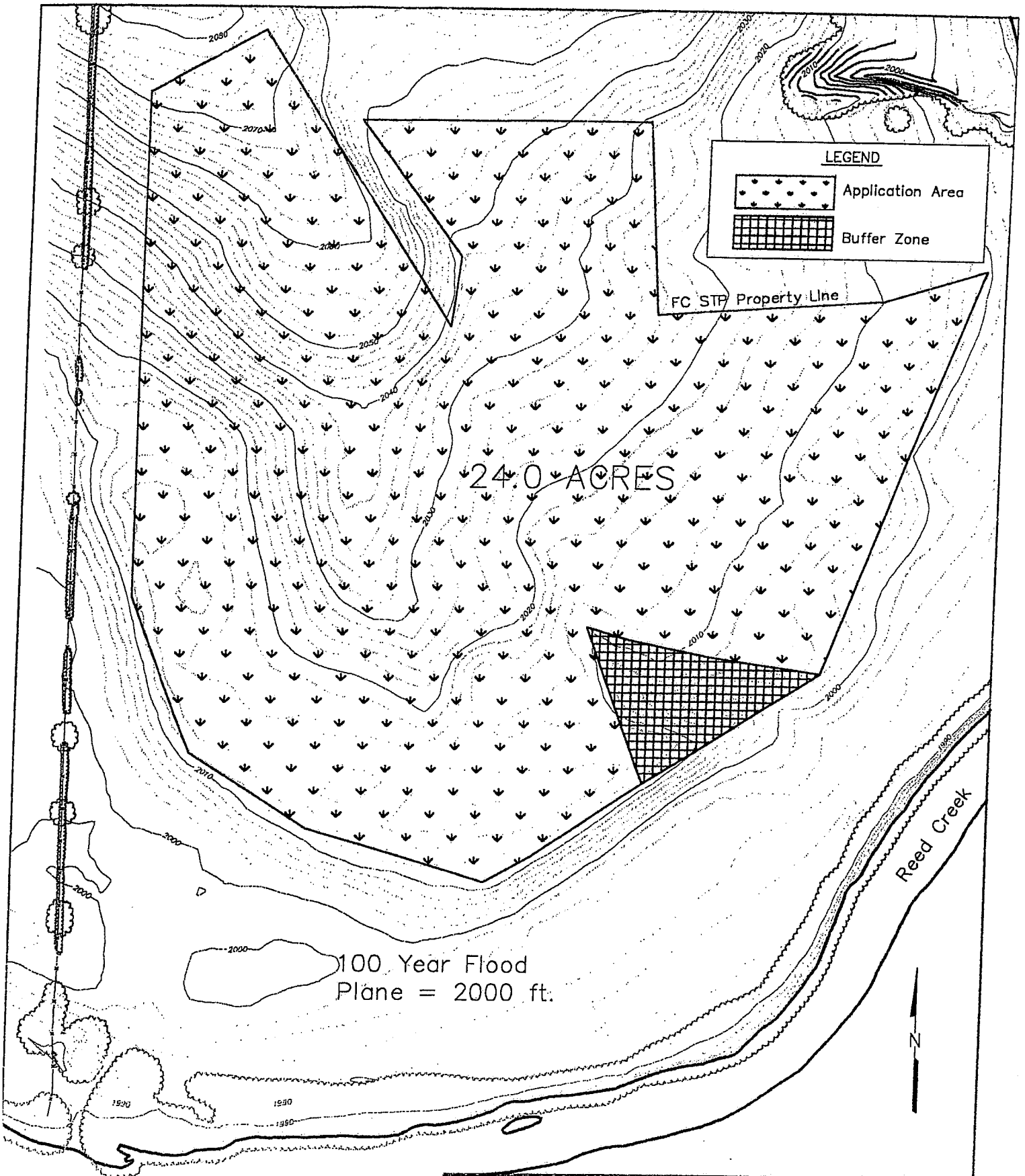


WYTHE COUNTY WASTEWATER SOIL SURVEY MAPPING			
DRAWN: DTC	DATE: 15 JUL 99	SCALE: 1"=1000'	FIGURE C12-2

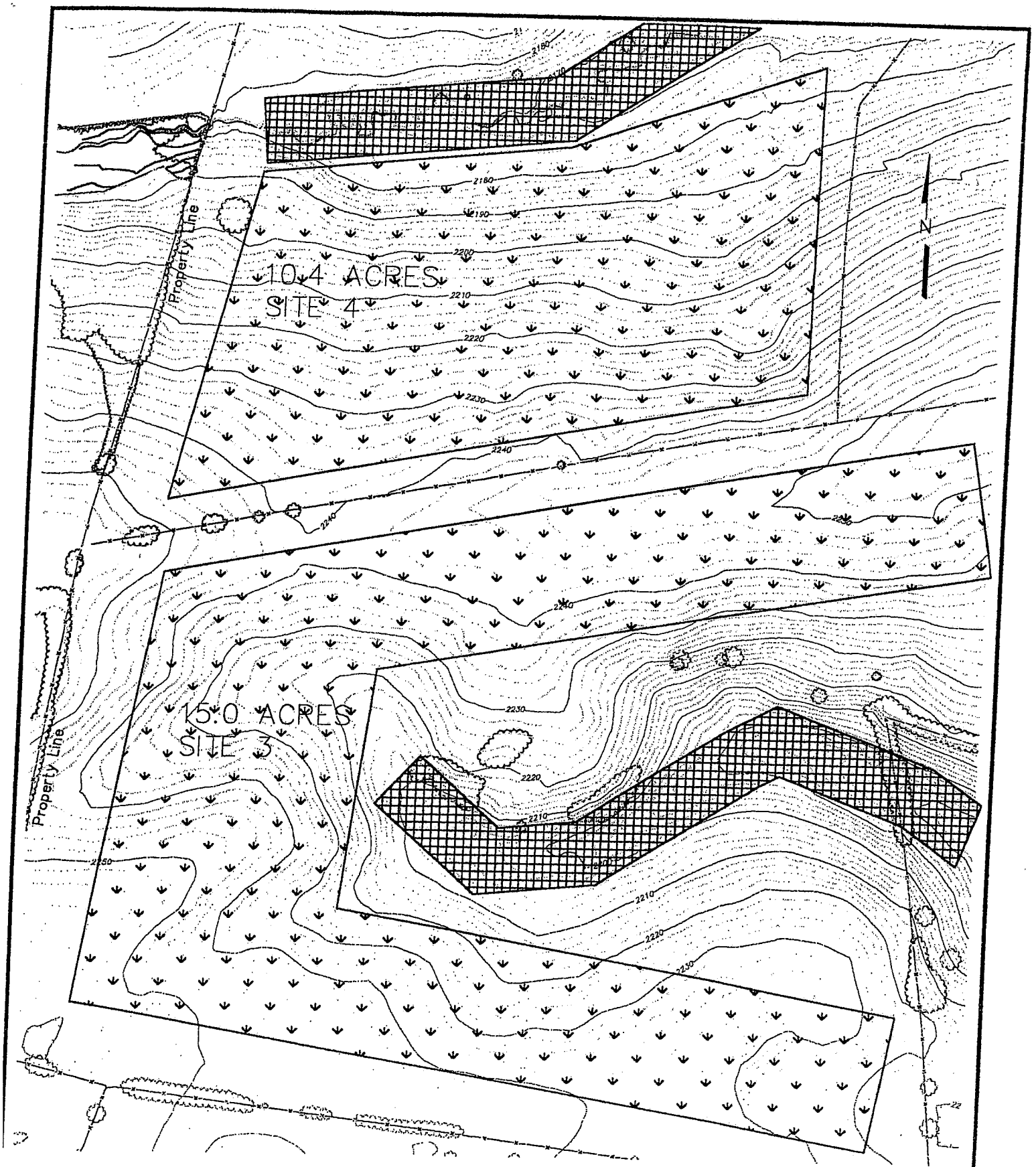
Parksites.dwg

WYTHE COUNTY WASTEWATER SOIL SURVEY MAPPING			
DRAWN: DTC	DATE: 15 JUL 99	SCALE: 1"=1000'	FIGURE C12-3

Allsites.dwg



WYTHE COUNTY WASTEWATER LAND APPLICATION SITE 1			
DRAWN: DTC	DATE: 15 JUL 99	SCALE: 1"=200'	FIGURE C12-4



LEGEND

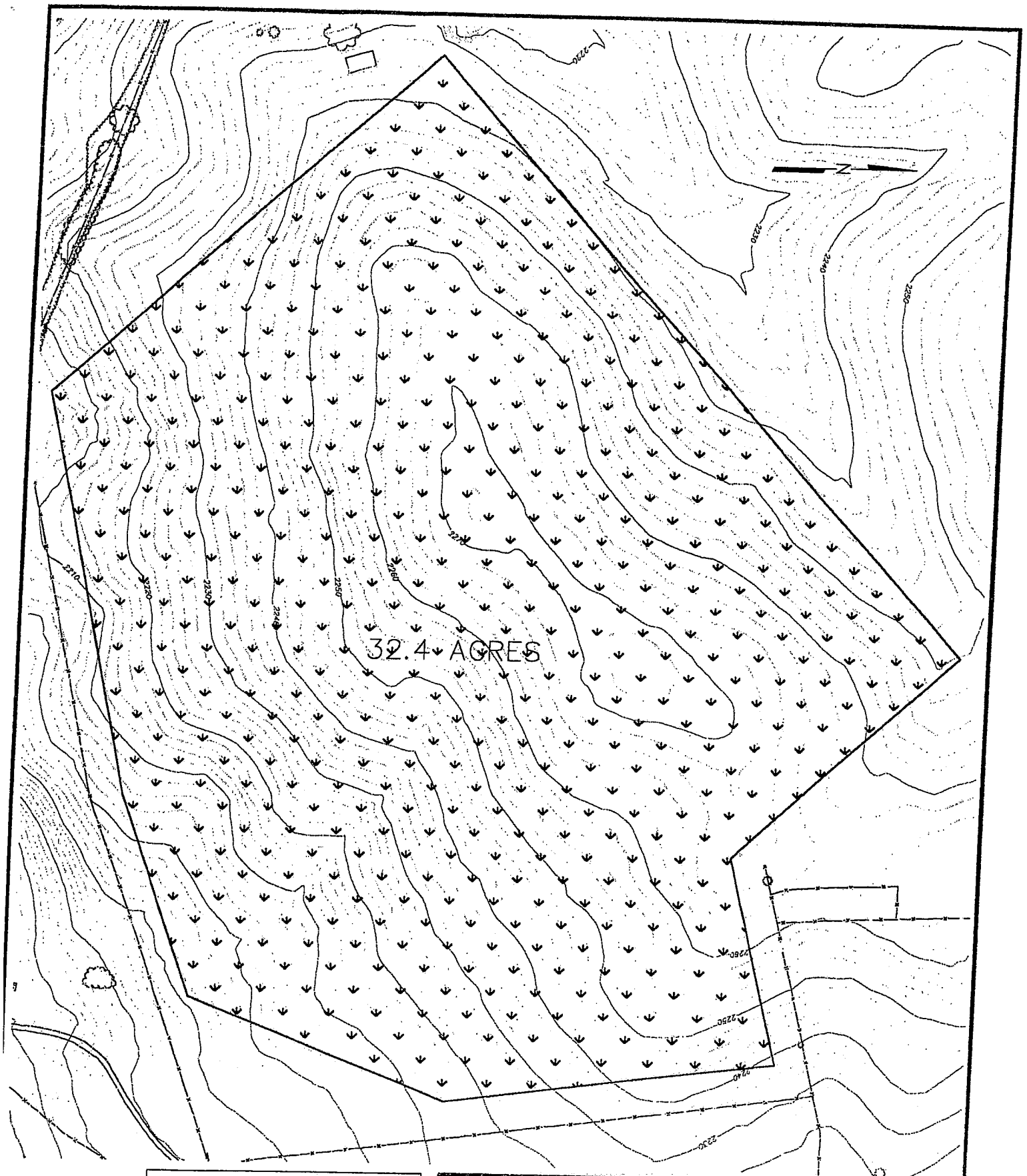
Application Area

Buffer Zone

WYTHE COUNTY WASTEWATER
LAND APPLICATION SITE 3 & 4

DRAWN:	DATE:	SCALE:	FIGURE
DTC	15 JUL 99	1"=200'	C12-6

SITE3&4.DWG



LEGEND

Application Area

Buffer Zone

WYTHE COUNTY WASTEWATER
LAND APPLICATION SITE 5

DRAWN:	DATE:	SCALE:	FIGURE
DTC	15 JUL 99	1"=200'	C12-7

SITE5.DWG

APPENDIX A

EMS, Inc.
Environmental Management Services
Laboratory Services - Plant Operations - Consultants
P.O. Box 784 · Wytheville, VA 24382
Phone: 276-228-6464 · Fax: 276-228-2325
E-mail: emslab@wiredog.com

CERTIFICATE OF ANALYSIS

Final Report

April 5, 2011

Don Crisp
Wythe County Wastewater Dept.
340 South Sixth St., Admin. Bldg.
Wytheville, VA 24382

RE: Sample Number(s): 11-1003

Dear Mr. Crisp:

The analytical data contained in this report has been validated using standard quality control measures as specified by the analytical method, SOP's, and the Laboratory's Quality Assurance Manual. Unless otherwise noted, the results of all analyses meet the requirements of the analytical method and of NELAP. The parameters of temperature, pH, dissolved oxygen, and residual chlorine are analyzed in the field and are not included in our NELAP Scope of Accreditation.

Unless otherwise noted, subcontracted analyses are performed by laboratories who hold NELAP accreditation for the method(s) used.

Sample preservation is documented at the time of receipt at the laboratory and/or during the analysis procedure. Unless otherwise noted, all testing was performed on preservation compliant samples.

The analytical data contained in this report relates only to the samples submitted for analysis. This report shall not be reproduced, except in full, without the written permission of EMS, Inc. EMS, Inc. assumes no responsibility, expressed or implied, as to the interpretation or use of the analytical data contained in this report.

The liability of EMS, Inc. in any claim relating to analysis performed shall be limited to (at the option of EMS, Inc.) repeating the analysis in question or the refund of fees paid for the analysis.

If you have any questions, please feel free to contact us at 276-228-6464.

Sincerely,

Gary Mychel Johnson
Laboratory Manager

EMS, Inc.
Certificate of Analysis

Client: Wythe County Wastewater Department

Sample No.: 11-1003

Sample Source: Ft. Chiswell WWTP

Description: Sludge

Date/Time Collected: 03-14-11/1030

Collected By: Hank Gross

Delivered to Laboratory By: Gary L. Johnson

Received By: Gary L. Johnson

Date/Time Received At Laboratory: 03-14-11/1100

Preservation: On Ice

Parameter	Result	Units of Measure	Analytical Method	Date/Time Analysis Started	Analyst	Data Qualifier
pH (Laboratory)	7.3	SU	SM18 4500-H^+ B	03-14-11/1200	GLJ	2
Total Solids	14.6	%	SM18 2540G	03-14-11/1425	GMJ	2
Alkalinity	6,680	mg/Kg Dry	EPA 310.1	03-14-11/1205	GLJ	2
Ammonia-N	1,470	mg/Kg Dry	SM18 4500-NH_3 B/F	03-14-11/1230	GLJ	2
TKN	59,500	mg/Kg Dry	SM18 4500-N_{org} C	03-14-11/1225	GLJ	2
Nitrate	40.4	mg/Kg Dry	SM18 4500-NO_3^- E	03-21-11/1230	Subcontracted	5
Nitrite	3.8	mg/Kg Dry	SM18 4500-NO_2^- B	03-21-11/1230	Subcontracted	5
Total Phosphorus	22,800	mg/Kg Dry	SM18 4500-P E	03-22-11/1630	Subcontracted	5
PCB 1242	<1.65	mg/Kg Dry	SW846 8082	03-25-11	Subcontracted	5
PCB 1254	<1.65	mg/Kg Dry	SW846 8082	03-25-11	Subcontracted	5
PCB 1260	<1.65	mg/Kg Dry	SW846 8082	03-25-11	Subcontracted	5
TCLP Metals						
Arsenic	<0.050	mg/L	SW846 1311/6010B	03-24-11	Subcontracted	5
Barium	<0.020	mg/L	SW846 1311/6010B	03-24-11	Subcontracted	5
Cadmium	<0.010	mg/L	SW846 1311/6010B	03-24-11	Subcontracted	5
Chromium	<0.020	mg/L	SW846 1311/6010B	03-24-11	Subcontracted	5
Lead	<0.050	mg/L	SW846 1311/6010B	03-24-11	Subcontracted	5
Mercury	<0.002	mg/L	SW846 1311/7471	03-25-11	Subcontracted	5
Selenium	<0.050	mg/L	SW846 1311/6010B	03-24-11	Subcontracted	5
Silver	<0.020	mg/L	SW846 1311/6010B	03-24-11	Subcontracted	5

EMS, Inc.
Certificate of Analysis

Client: Wythe County Wastewater Department

Sample No.: 11-1003

Sample Source: Ft. Chiswell WWTP

Description: Sludge

Date/Time Collected: 03-14-11/1030

Collected By: Hank Gross

Delivered to Laboratory By: Gary L. Johnson

Received By: Gary L. Johnson

Date/Time Received At Laboratory: 03-14-11/1100

Preservation: On Ice

Parameter	Result	Units of Measure	Analytical Method	Date/Time Analysis Started	Analyst	Data Qualifier
Total Metals						
Arsenic	4.95	mg/Kg Dry	SW846 6010B	03-25-11/0328	Subcontracted	
Cadmium	9.73	mg/Kg Dry	SW846 6010B	03-25-11/0328	Subcontracted	
Copper	386	mg/Kg Dry	SW846 6010B	03-25-11/0328	Subcontracted	
Lead	32.6	mg/Kg Dry	SW846 6010B	03-25-11/0328	Subcontracted	
Mercury	0.113	mg/Kg Dry	SW846 7471A	03-24-11/1152	Subcontracted	
Molybdenum	21.0	mg/Kg Dry	SW846 6010B	03-25-11/0328	Subcontracted	
Nickel	118	mg/Kg Dry	SW846 6010B	03-25-11/0328	Subcontracted	
Potassium	4,150	mg/Kg Dry	SW846 6010B	03-25-11/0328	Subcontracted	
Selenium	5.29	mg/Kg Dry	SW846 6010B	03-25-11/0328	Subcontracted	
Zinc	1,860	mg/Kg Dry	SW846 6010B	03-25-11/0328	Subcontracted	

Data Qualifiers

2: Parameter not included in the Laboratory's NELAP Scope of Accreditation.

5: Analysis performed by a laboratory that is not NELAP Accredited.

Subcontracted Laboratories

SM18 4500-NO_3^- E	Primary Laboratories, Inc.
SM18 4500-NO_2^- B	Primary Laboratories, Inc.
SM18 4500-P E	Primary Laboratories, Inc.
SW846 8082	Primary Laboratories, Inc.
SW846 1311/6010B	Primary Laboratories, Inc.
SW846 1311/7471	Primary Laboratories, Inc.
SW846 6010B	Environmental Testing & Consulting, Inc.
SW846 7471A	Environmental Testing & Consulting, Inc.

APPENDIX B

FACILITY NAME: Ft Chiswell/Max Meadows WWTP VPDES PERMIT NUMBER: VA0074161

SLUDGE APPLICATION AGREEMENT

This sludge application agreement is made on this date Aug. 17, 1999 between Agnes C. Davis referred to here as "landowner", and Wythe Co. Water & Sanitation Authority referred to here as the "Permittee".

Landowner is the owner of agricultural land shown on the map attached as Exhibit A and designated there as SITE 7 ("landowner's land"). Permittee agrees to apply and landowner agrees to comply with certain permit requirements following application of sewage sludge on landowner's land in amounts and in a manner authorized by VPDES permit number 0074161 which is held by the Permittee.

Landowner acknowledges that the appropriate application of sewage sludge will be beneficial in providing fertilizer and soil conditioning to the property. Moreover, landowner acknowledges having been expressly advised that, in order to protect public health, the following site restrictions must be adhered to when sewage sludge receives Class B treatment for pathogen reduction:

1. Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge;

2. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for four months or longer prior to incorporation into the soil;

3. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than four months prior to incorporation into the soil;

4. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge;

5. Animals shall not be allowed to graze on the land for 30 days after application of sewage sludge;

6. Turf grown on land where sewage sludge is applied shall not be harvested for one year after application of the sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the State Water Control Board;

7. Public access to land with a high potential for public exposure shall be restricted for one year after application of sewage sludge;

8. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.

9. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of sewage sludge borne cadmium equal to or exceeding 0.5 kilograms/hectare (0.45 pounds/acre).

Permittee agrees to notify landowner or landowner's designee of the proposed schedule for sludge application and specifically prior to any particular application to landowner's land. This agreement may be terminated by either party upon written notice to the address specified below.

Landowner:
Agnes C. Davis
Signature

R.F.D. #2 Box 201
Wytheville, Virginia
24382
Mailing Address

Permittee:
Signature

345 South Fourth St. Wytheville VA
24382
Mailing Address

Wythe County Water & Wastewater

340 South Sixth Street - Administration Building
Wytheville, Virginia 24382-2598
Telephone (276) 223-6021
FAX (276) 223-6030

R. Cellell Dalton
County Administrator

Don T. Crisp
Director

Dawn Harmon
Secretary

July 22, 2011

U.S. Fish and Wildlife Service
Virginia Field Office
6669 Short Lane
Gloucester, VA 23061

Re: Sludge Application

Dear Sir or Madam:

Wythe County is preparing a sludge application plan for the Dept. of Environmental Quality for the land application of treated municipal sewage sludge.
The County has selected four (4) sites within the county that we propose to apply sludge to. These sites are shown on the attached maps.

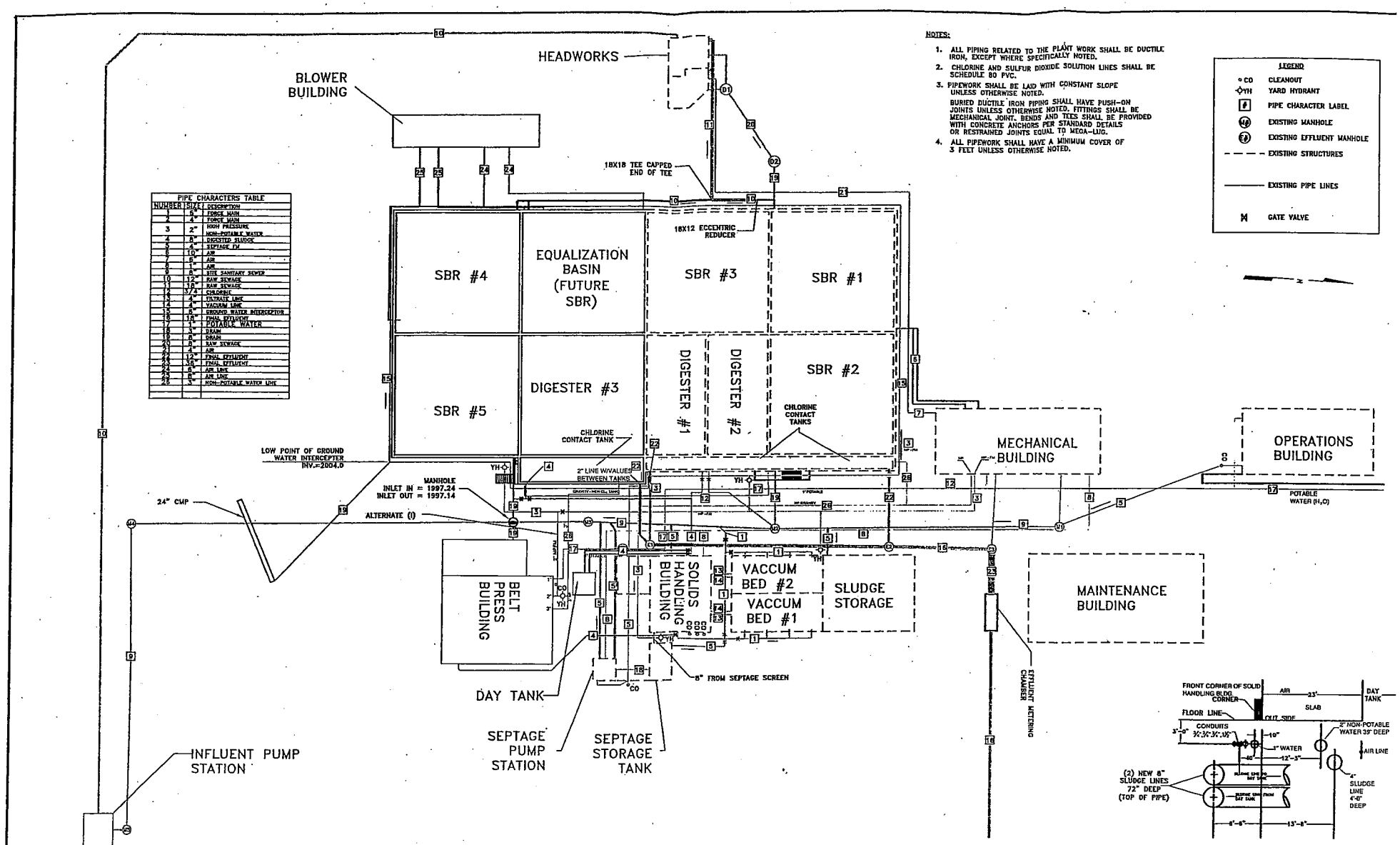
Please review the enclosed maps and advise if the application of bulk sewage sludge will impact federally listed threatened or endangered species or federally designated critical habitat.

If you have any questions concerning this matter please contact me at 276-223-6021.

Sincerely,

Donald T Crisp Jr.
Director, Water & Wastewater

F:/don/letters/fish&wild.doc



PIPE CHARACTERS TABLE		
NUMBER	SIZE	DESCRIPTION
1	6"	FORCE MAIN
2	4"	FORCE MAIN
3	2"	HIGH PRESSURE NON-POTABLE WATER
4	8"	DIGESTED SLUDGE
5	4"	SEPTAGE FM
6	10"	AIR
7	6"	AIR
8	1"	AIR
9	8"	SITE SANITARY SEWER
10	12"	RAW SEWAGE
11	16"	RAW SEWAGE
12	1/4	CHLORINE
13	4"	FILTRATE LINE
14	4"	VACUUM LINE
15	6"	GROUND WATER INTERCEPTOR
16	18"	FINAL EFFLUENT
17	1"	POTABLE WATER
18	3"	DRAIN
19	6"	DRAIN
20	8"	RAW SEWAGE
21	4"	AIR
22	12"	FINAL EFFLUENT
23	36"	FINAL EFFLUENT
24	6"	AIR LINE
25	6"	AIR LINE
26	3"	NON-POTABLE WATER LINE

NOTES:

1. ALL PIPING RELATED TO THE PLANT WORK SHALL BE DUCTILE IRON, EXCEPT WHERE SPECIFICALLY NOTED.
2. CHLORINE AND SULFUR DIOXIDE SOLUTION LINES SHALL BE SCHEDULE 80 PVC.
3. PIPEWORK SHALL BE LAID WITH CONSTANT SLOPE UNLESS OTHERWISE NOTED.

   BURIED DUCTILE IRON PIPING SHALL HAVE PUSH-ON JOINTS UNLESS OTHERWISE NOTED. FITTINGS SHALL BE MECHANICAL JOINT. BENDS AND TEES SHALL BE PROVIDED WITH CONCRETE ANCHORS PER STANDARD DETAILS OR RESTRAINED JOINTS EQUAL TO MEGA-LUG.
4. ALL PIPEWORK SHALL HAVE A MINIMUM COVER OF 3 FEET UNLESS OTHERWISE NOTED.

LEGEND

- CO CLEANOUT
- YH YARD HYDRANT
- # PIPE CHARACTER LABEL
- MH EXISTING MANHOLE
- EM EXISTING EFFLUENT MANHOLE
- EXISTING STRUCTURES
- EXISTING PIPE LINES
- GATE VALVE

NO.	REVISIONS	DATE	BY

Pentree Incorporated
Consulting Engineers ©

WYTHE COUNTY BOARD of SUPERVISORS
FORT CHISWELL WASTEWATER
TREATMENT PLANT UPGRADE
CONTRACT 2
WYTHE COUNTY, VIRGINIA

NOTE:
EXISTING INFORMATION PROVIDED BY WYTHE COUNTY BOARD OF SUPERVISORS

COMMONWEALTH OF VIRGINIA
DARREL R. SHORTT
10/16/06
PROFESSIONAL ENGINEER

SITE PIPING PLAN

SHEET:	A-4
DATE:	8-11-2008
DRAWN BY:	GEI/CDF
CHECKED BY:	JWT
APPROVED BY:	DRS
ACAD DIR:	FT. WYTHE-002
ACAD FILE:	SITE PIPING
HOR. SCALE:	1"=20'-0"